Royal Sovereign

MODEL:RSH-1650
RSH-1050

ROLL LAMINATOR
Service Manual

www.royalsovereign.com

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1. Safety Precautions

Failure to comply any of the following safety procedures could result in serious injury. Please read the instructions carefully and keep for future reference.

1. Only a licensed electrician should install wiring and outlet for the laminator.

2. Ensure the unit is plugged into a properly grounded outlet with the correct voltage.

3. Keep hands and clothing (ie.Neckties)away from rollers. The rollers are pinch points that can trap body parts or clothing and cause serious injury .

4. Keep flammable and wet objects away from the machine .

5. Place machine on a sturdy and level surface.

6. Avoid excessive sunlight, humidity and extreme temperatures.

7. Ensure the unit is turned off, cooled ,and unplugged from the outlet prior to moving and/or repairing.

8. Keep out of reach of children.

9. Only Royal Sovereign authorized maintenance and service technicians should make repairs.

10. Do not attempt to laminate items that exceed total recommended material thickness for the unit.

11. When cleaning the machine, don't use flammable sprays or materials.

12. Do not touch the rollers when they are hot or place foreign objects inside the machine.

13. Do not cover the surface of the machine until the machine has completely cooled.

2. Troubleshooting

Note: While repairing:

a. Make sure the power plug is unplugged from the power outlet.

b. Open both side covers and rear cover.

c. Be sure to follow the steps below in order.

2.1 Rollers Not Heating

CAUSES:

1. Improper laminating mode.

2. Heating wire is not connected to the main PCB.

3. Blown (burnt) upper and/or lower wire fuse (T/Fuse).

4. Defective Bi-Metal.

5. Defective heater.

6. Defective Main PCB.

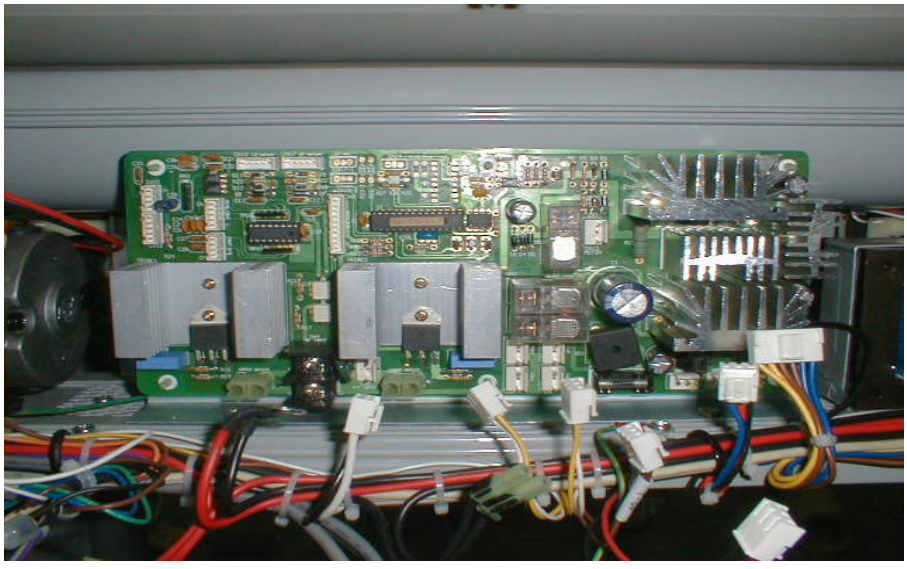
MEASURE

1. Improper laminating mode.

a. Ensure that the laminating mode is in the “Hot” mode, not the “Cold” mode.
Press “C/HOT” button on the control panel to change the mode.

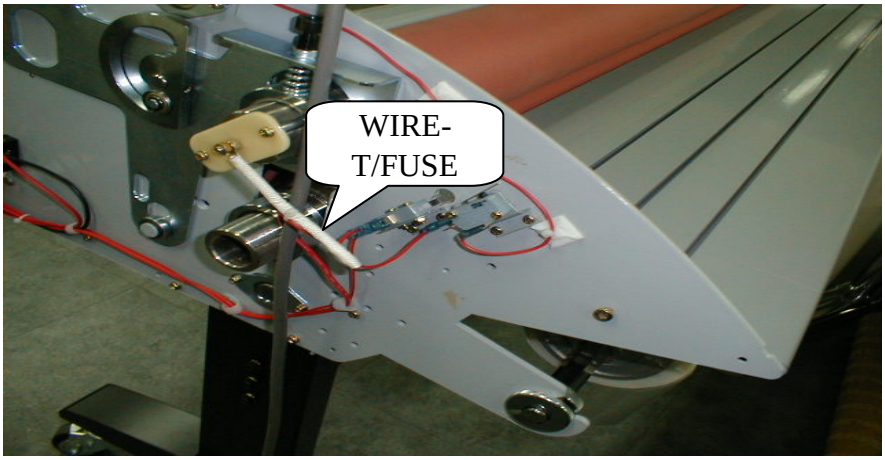
2. Heating wire is not connected to the main PCB.

a. Connect the upper and lower heating wires to the main PCB.



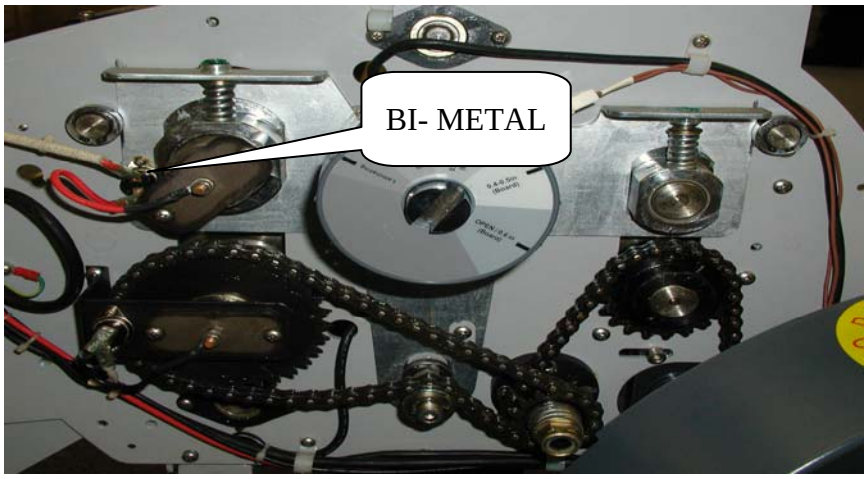
3. Blown (burnt) upper and/or lower wire fuse (T/Fuse).

a. Replace the T/Fuse wire located on the left-hand side.



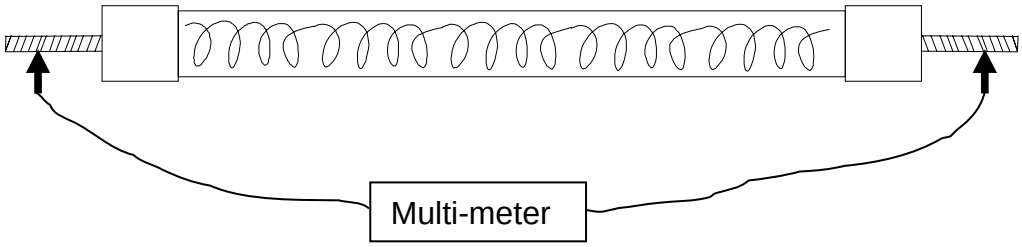
4. Defective Bi-Metal.

a. Replace the Bi-Metal

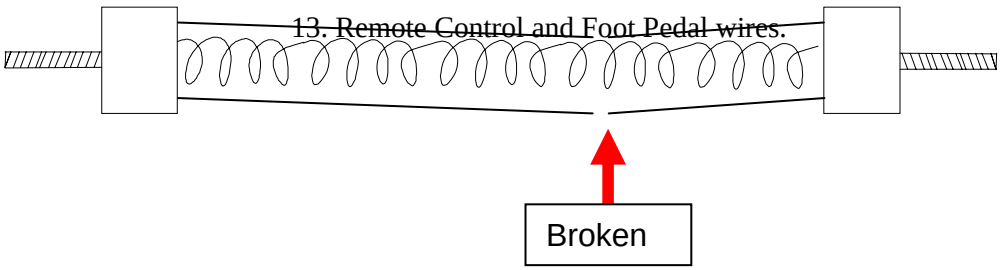


5. Defective heater.

a. Using the multi-meter, test the continuity of the heater. If it fails, replace the heater.



b. Physically examine the heater assembly for breakage.



6. Defective Main PCB.

a. Replace the PCB Main.

2.2) Rollers Over Heating

CAUSES

1. Lower and upper heat sensors are reversed on the PCB Main.

2. Defective T/Fuse wire.

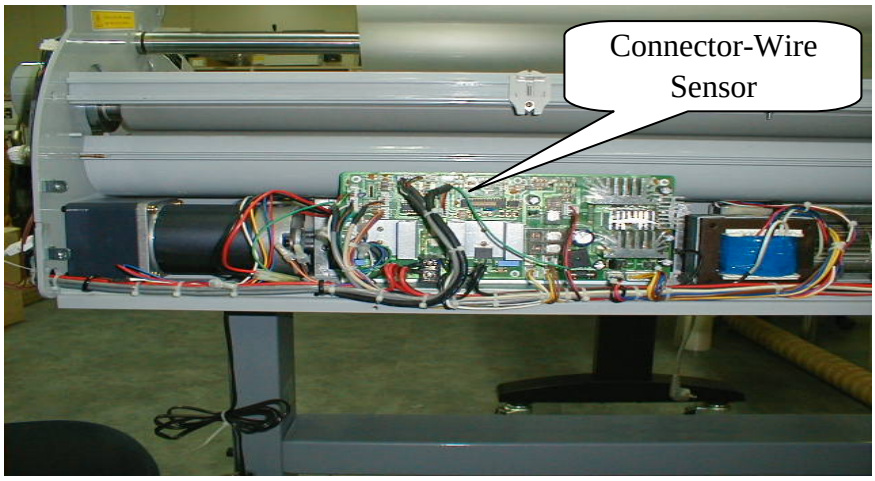
3. Defective heater.

4. Defective main PCB.

MEASURES

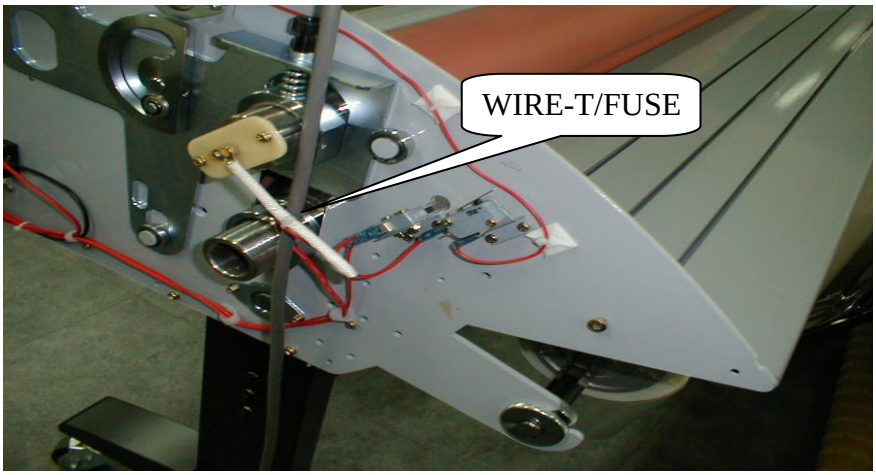
1. Wires for lower and upper heat sensors are reversed on the main PCB.

a. Reverse the heat sensors.



2. Defective T/Fuse wire.

a. Replace the T/Fuse wire located on the left-hand side.



3. Defective heater.

a. Test continuity of the heater. If it fails, replace the heater.

b. Glass tube that surrounds heating coil is broken – replace the heating element.

4. Defective Main PCB.

a. Replace the PCB Main.

2.3) Rollers Not Running

CAUSES

1. **No power to the unit.**
2. **Emergency switch is engaged.**
3. **Disengaged Paper Guide switch.**
4. **Opened safety cover.**
5. **Film is jammed on the rollers.**
6. **Disconnected motor wire.**
7. **Blown motor fuse.**
8. **Defective main motor.**
9. **Defective main PCB.**

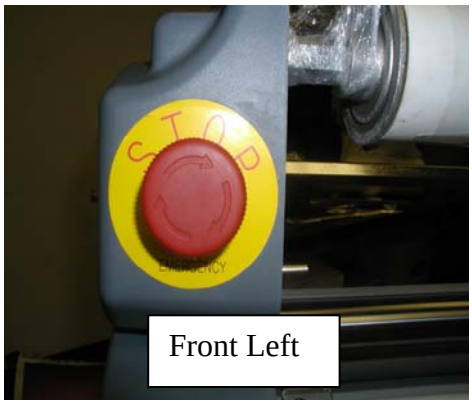
MEASURES

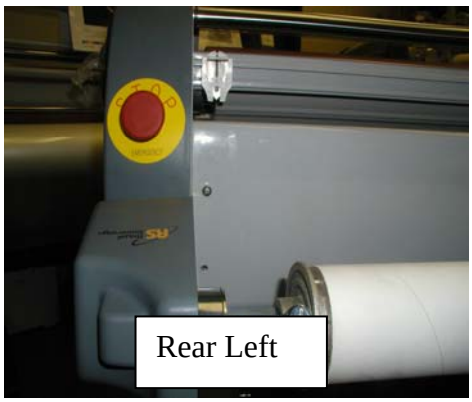
1. No power to the unit.

a. Make sure the power plug is connected to the proper source of outlet (220V, 15Amp, & single phase).

2. Emergency switch is engaged.

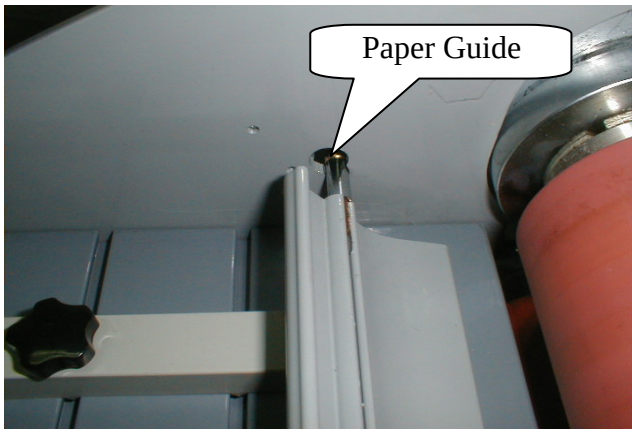
a. Disengage the emergency switches located on the front and on the rear of the machine by rotating the knob clock-wise.





3. Disengaged Paper Guide switch.

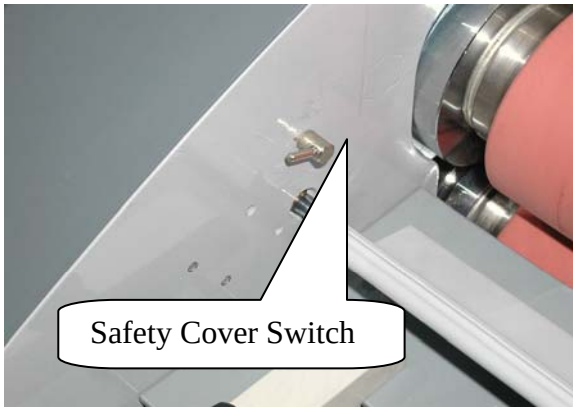
a. Properly position the paper guide to engage the switch.

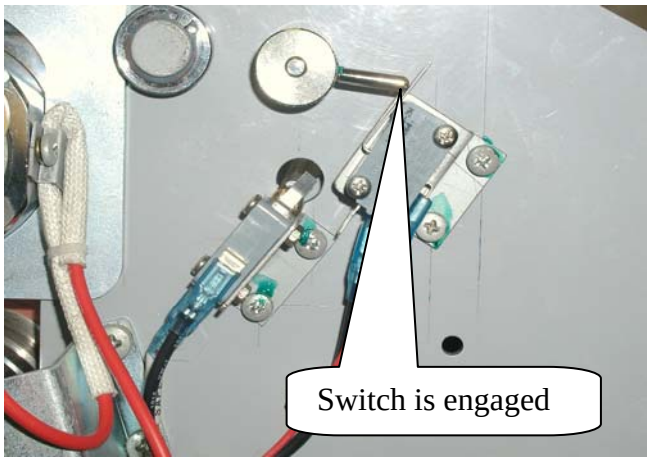


4. Opened safety cover.

a. Close the safety cover and double check to insure that the safety cover switch is engaged.

Note: By closing the safety cover, it engages the safety cover switch.



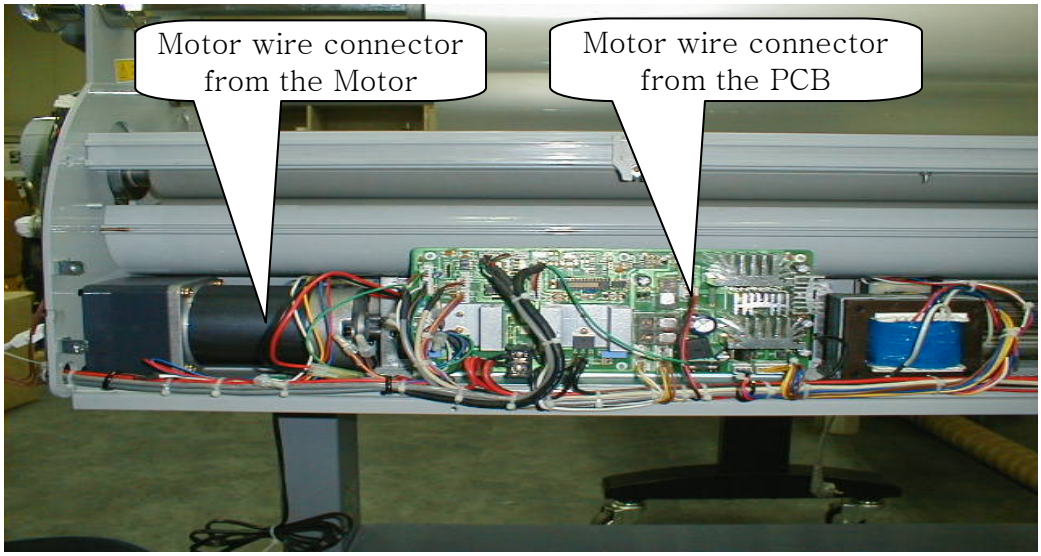


5. Film is jammed on the rollers.

a. Un-jam the film using a combination of the pressure lever and reverse button.

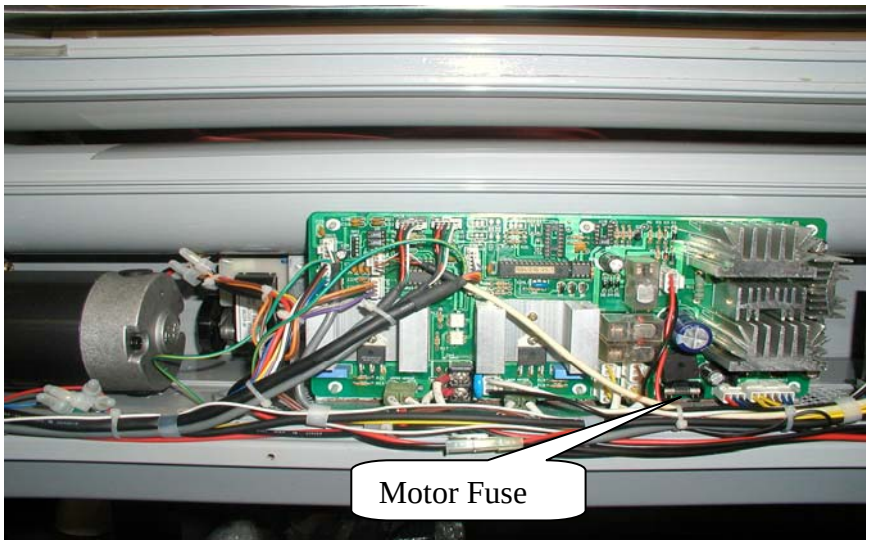
6. Disconnected motor wire.

a. Check the motor wire connection in both locations.



7. Blown motor fuse.

a. Replace the motor fuse located above the main power switch.



8. Defective main motor.

a. Replace the main motor.

8. Defective main motor.

a. Replace the main motor.

9. Defective main PCB.

a. Replace the main PCB.

2.4) No Main Power

CAUSES

1. **No electricity.**
2. **Blown main fuse.**
3. **Disconnected main power wires.**
4. **Defective transformer.**

MEASURES

1. No Electricity.

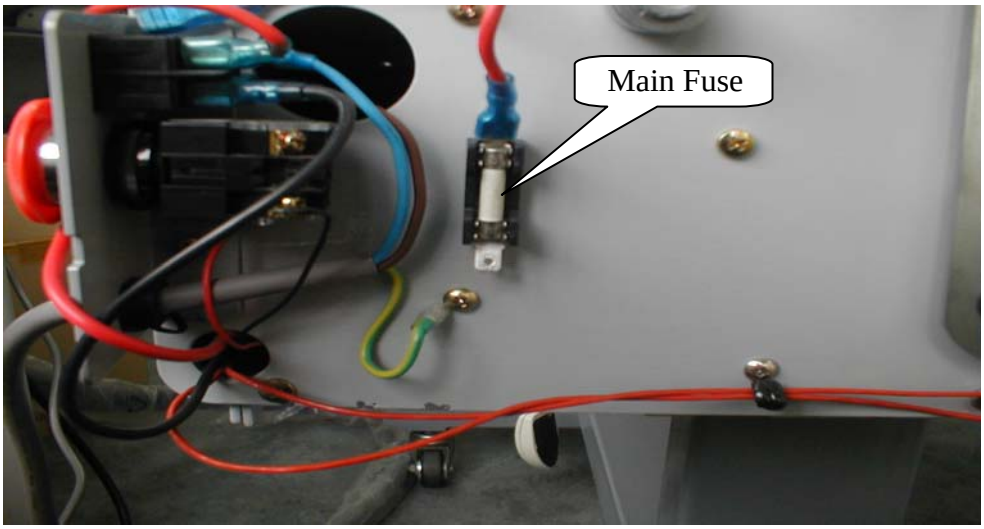
a. Double check to insure that you have electricity from your outlet.

b. Check the circuit breaker.

c. Double check that source of power is 220V, 15Amp, and single phase.

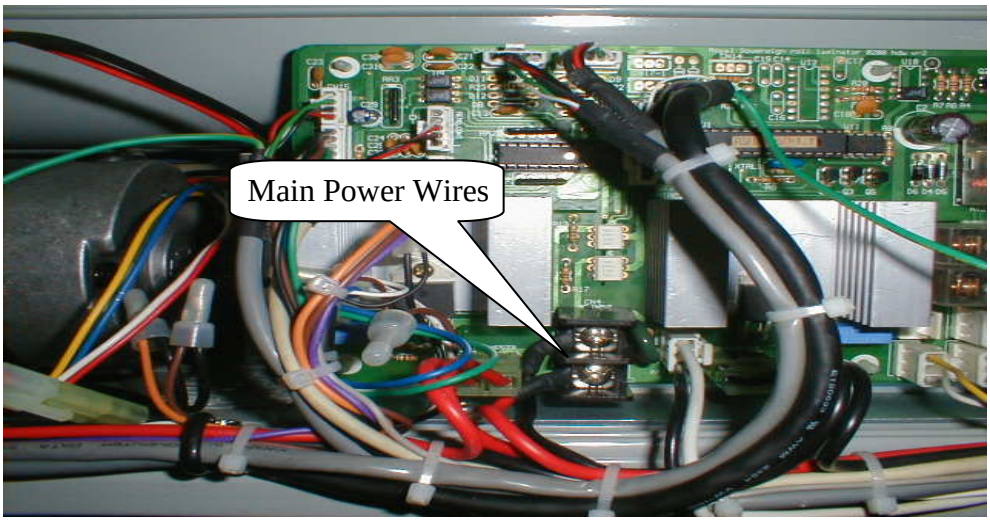
2. Blown main fuse.

a. Replace the main fuse located above the main power switch.



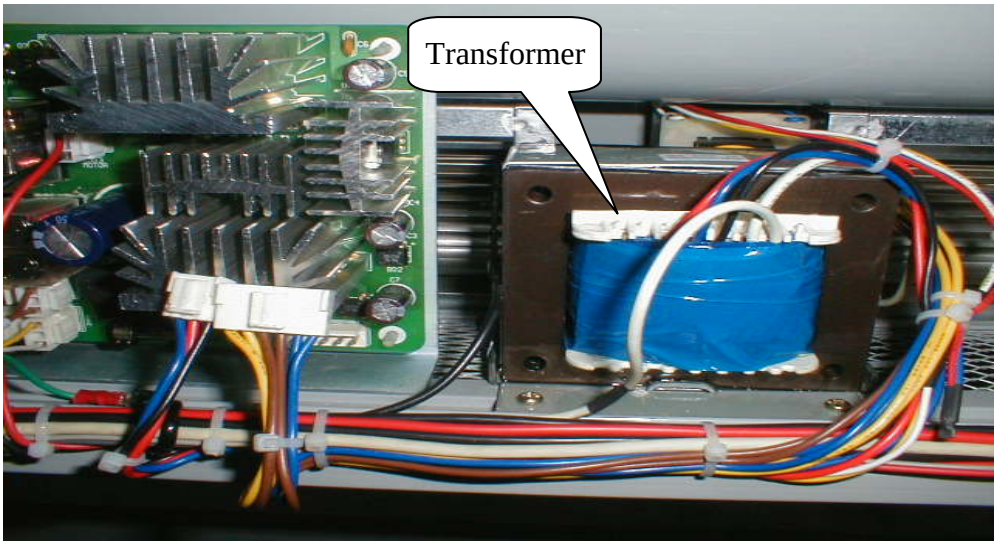
3. Disconnected main power wires.

a. Check that the main power wires are properly connected.



4. Transformer is defective

a. Replace the transformer.



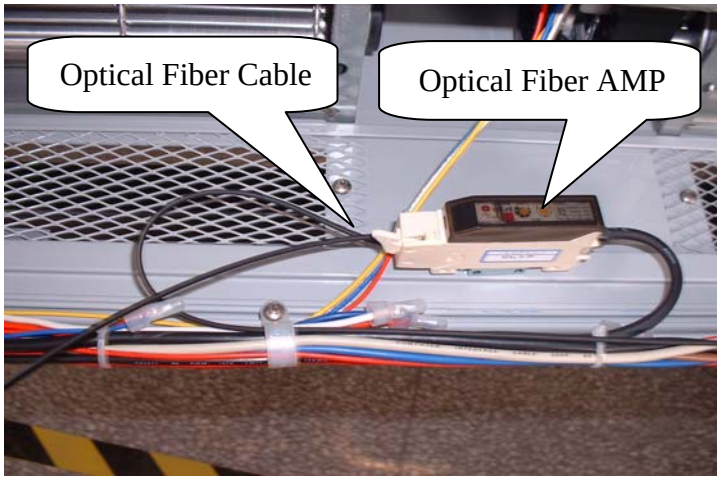
2.5) Count Sensor Not Working.

CAUSES

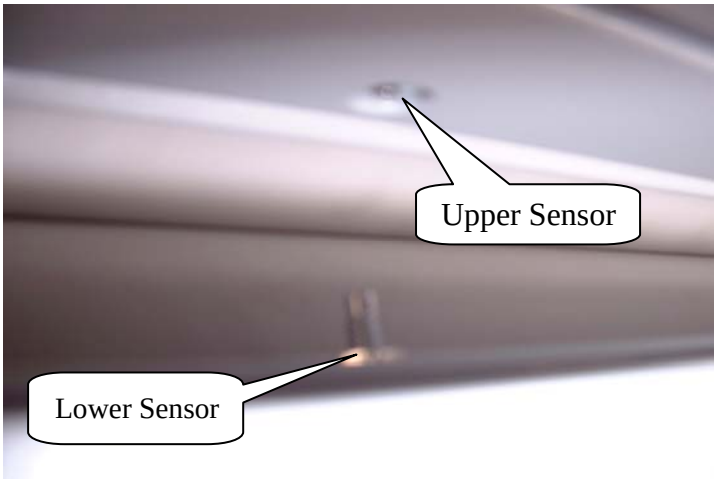
1. **The option fiber cable is not connected with optical fiber AMP.**
2. **The upper sensor is aligned properly with lower sensor.**
3. **The counter wires are not connected on the Main PCB.**
4. **Main PCB is defective.**
5. **The count needs adjustment.**

MEASURES

1. The option fiber cable is not connected with optical fiber AMP.

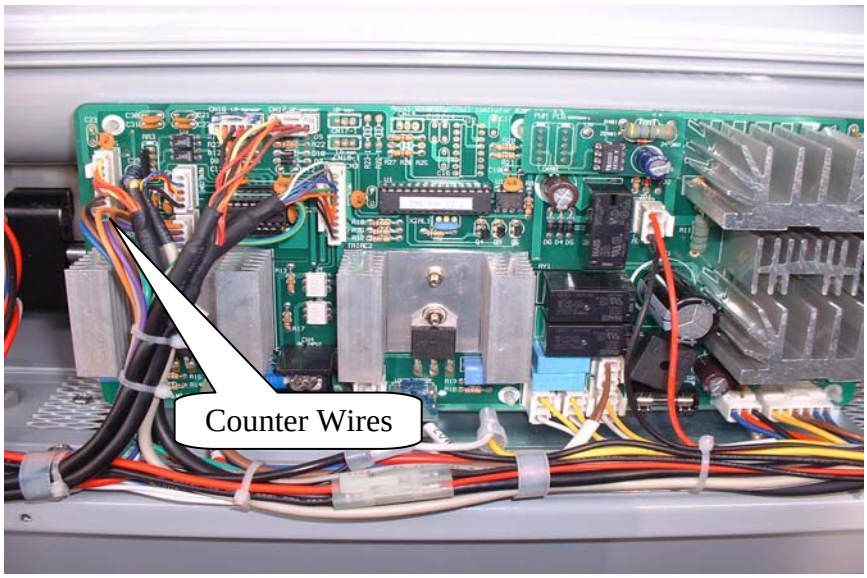


2. The upper sensor is aligned properly with lower sensor.



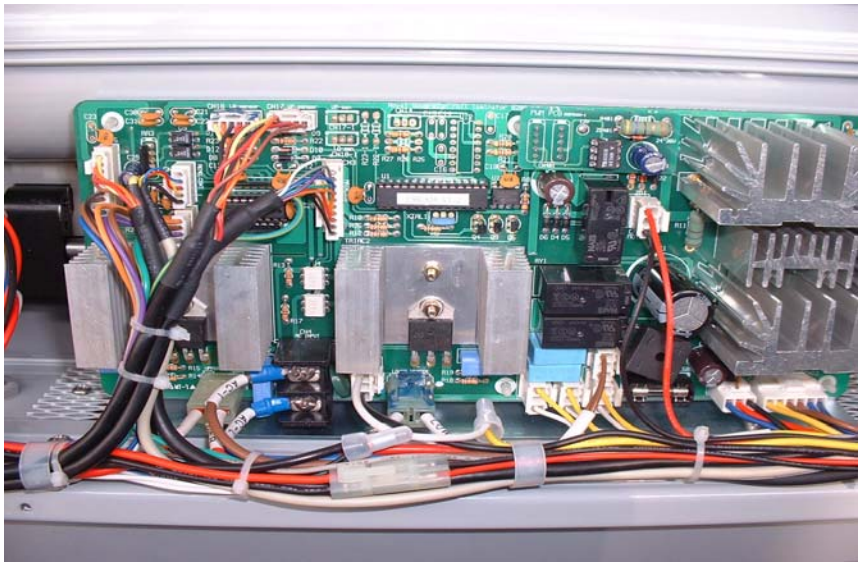
3. The counter wires are not connected on the Main PCB.

a. Ensure that the counter wires are connected to the Main PCB.



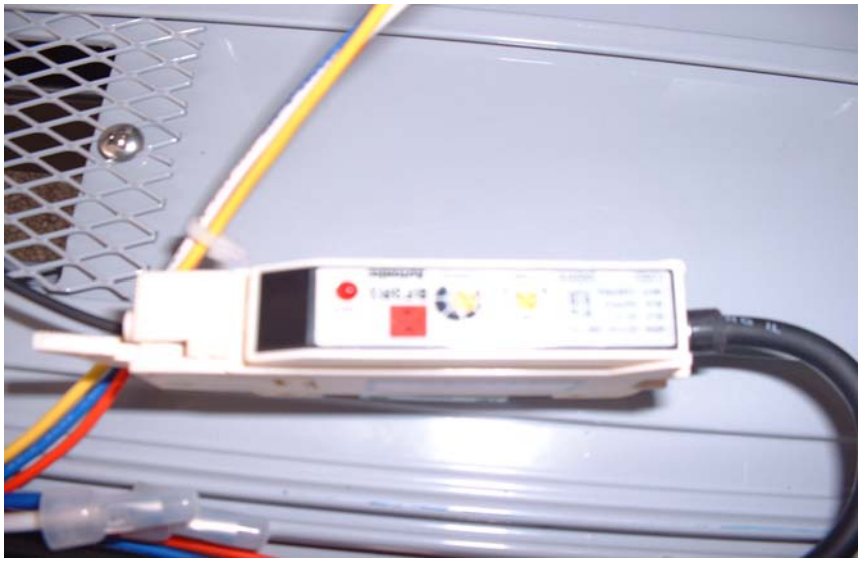
4. Main PCB is defective.

a. Replace the Main PCB.

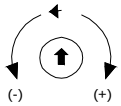
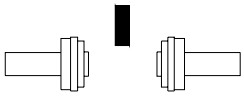
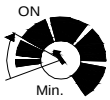
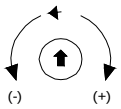
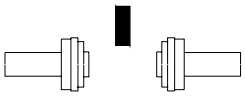
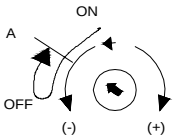
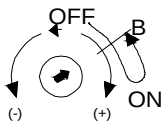
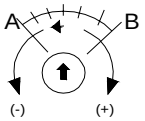
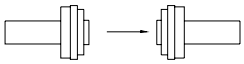
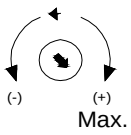


5. The count needs adjustment.

a. Please see below for adjustments.



Adjusting the Counter Sensor

NO.	Throught beam	Adjusting	VR	
			Coarse	Fine
1	Initial setting	Fix VR(Coarse) at ON position with turning right slowly when it is the status of the recviced light.		
2	Received light 	Fix VR(Coarse) at ON position with turning right slowly when it is the status of the recviced light.		
3	Received light 	Turning VR(Fine) until it is OFF toward(-),and turning until it is ON toward(+) again ,then confirm that this will be A position.	Coarse VR is not required to adjust afterwards.	
4	Interrupted light	And then turning VR(Fine) until it is ON toward(+),and turning until it is OFF toward(-) again in state of shading light.Then confirm that this position will be B position.(when it will not be ON.max. position will be B.		
5		Fix it at middle of A and B position. This will be the best position to set.		
6	Received light 	If it cannot adjust as above method. set VR(Fine) at max. position toward(+),then execute again.		

3. Replacing Parts

Note: While replacing parts:

a. Make sure the power plug is unplugged from the power outlet.

b. Open both side covers and rear cover.

3.1 Replacing the Right Cover.

a. Take out the pressure lever (Figure 1) and four cover screws using Phillips screw driver (Figure 2).

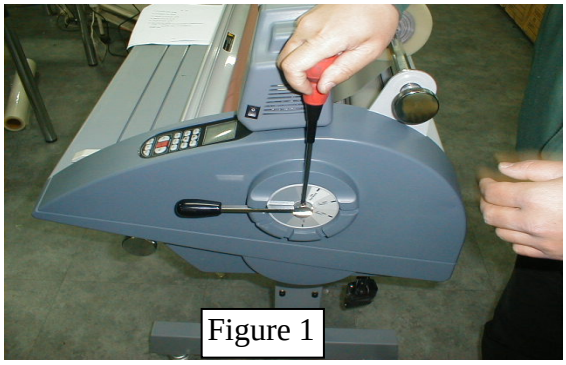


Figure 1

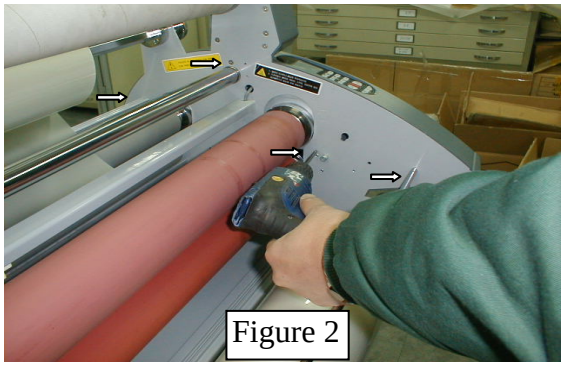


Figure 2

b. Pull out the male control panel connector from the Sub-PCB. Figure 3

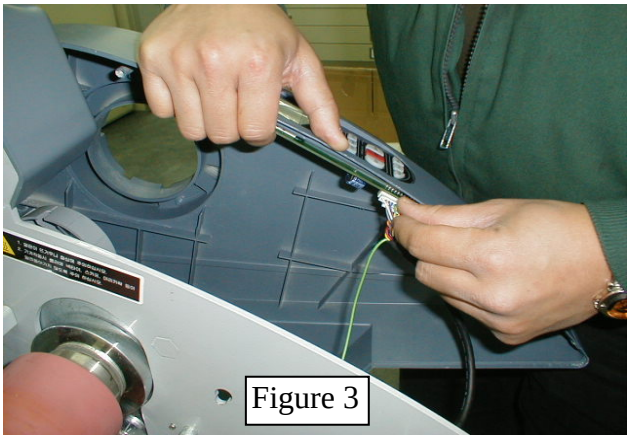


Figure 3

c. Loosen two screws from Sub-PCB and install on to new Right Cover. Figure 4

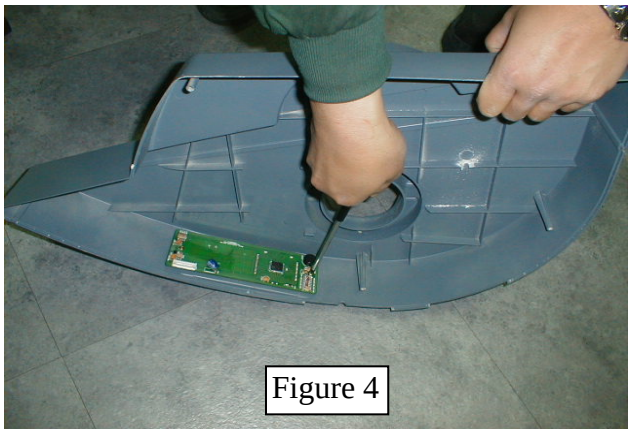


Figure 4

d. Follow the reverse order to assemble the Right Cover back.

3.2 Replacing the Left Cover

a. Replace the Left Cover by loosening four Left Cover screws.

3.3 Replacing Rear Cover

a. Take off the left and right covers.

b. Take out the seven screws from the back cover. Figure 5

c. Carefully slightly lift up the cover and slowly pull towards you. Figure 6

(Note: The Counter Sensor Wire is attached to the cover).

d. Open the Paper Counter latch and pull the black wire from the paper counter sensor to detach from the unit.

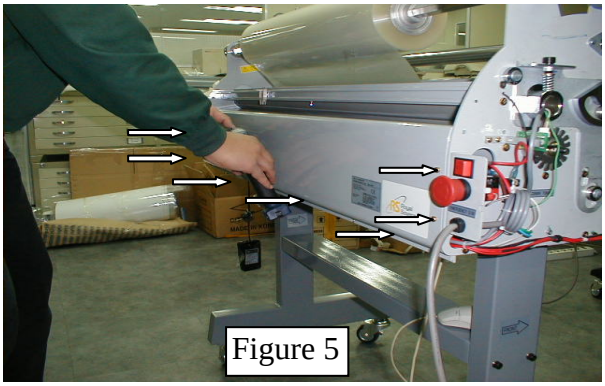


Figure 5

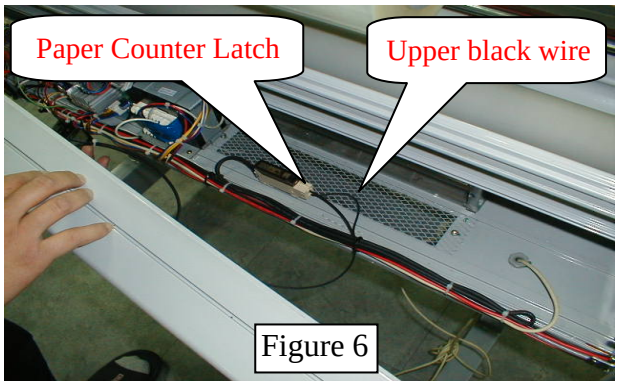


Figure 6

3.4 Replacing the Main PCB

a. Remove the rear cover and label all the wires before unplugging from the Main PCB.

b. Detach the Main PCB from 6 white plastic holders. Figure 7

c. Replace the board with new PCB and connect all the wires.

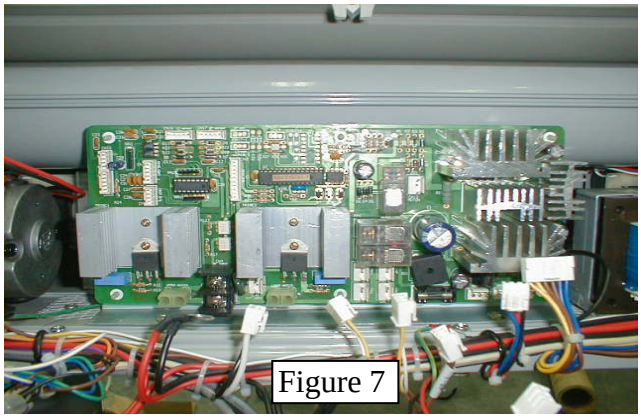


Figure 7

3.5 Replacing the Sub-PCB

a. Refer to “Replacing Right Cover”.

3.6 Replacing the Heaters

Note: Cotton or surgical gloves are recommended while handling the heater assembly.

a. Disassemble Right and Left Covers (Refer to "**Replacing Right Cover**" and "**Replacing Left Cover**").

b. Take out the heater brackets on each side by loosening the nuts and screws (Figure 8, 9, & 10).

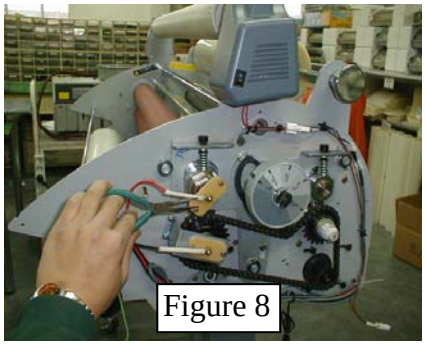


Figure 8

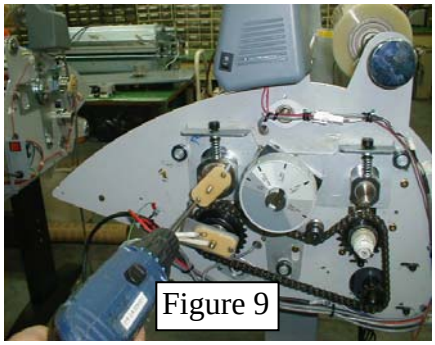


Figure 9

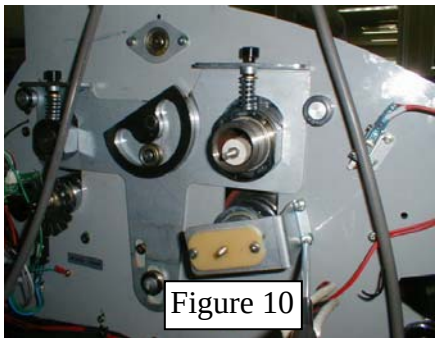


Figure 10

c. Take out the broken heater. Figure 11

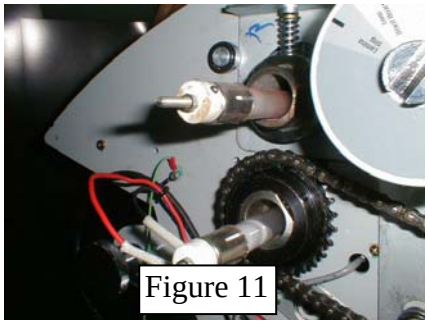


Figure 11

Note:

a. When inserting the heater into the roller, rotate the heater slightly and push the rod in gently.

b. Use an air blower to blow out the broken pieces of heating rod.

(Please ensure that no one is standing on the other side.)

3.7 Replacing the Cross Cutter

a. Disassemble the nut from the Frame-Cutter.

b. Unfasten the spring from the cutter.

c. Change the Cutter.

d. Assemble the Cutter by reversing the above steps.

4. Adjustments

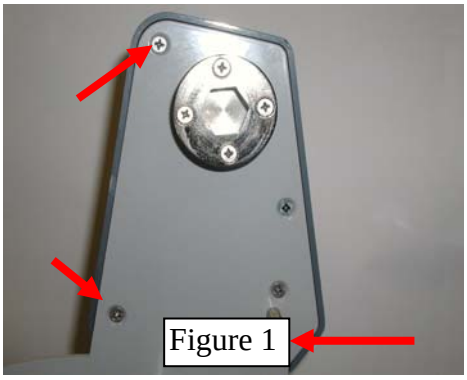
4.1 Adjusting Take-up Shaft Speed

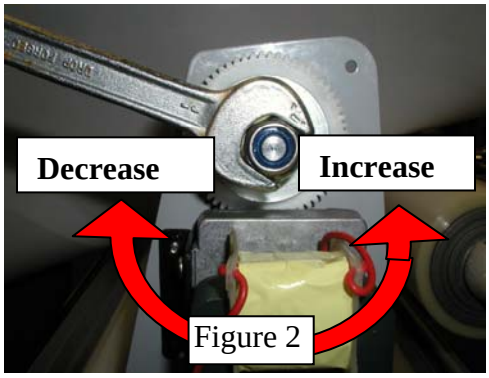
CAUSES:

1.Main rollers and take-up shaft speed is not synchronized.

MEASURES:

1. Take off the take up motor cover. Figure 1
2. Loosen (increases speed) or tighten (reduces speed) the bolt using 11/16" or 17mm wrench.
   Note: Loosen three screws as shown in Figure 1 to get to the adjustable take-up shaft speed bolt.
   Figure 2

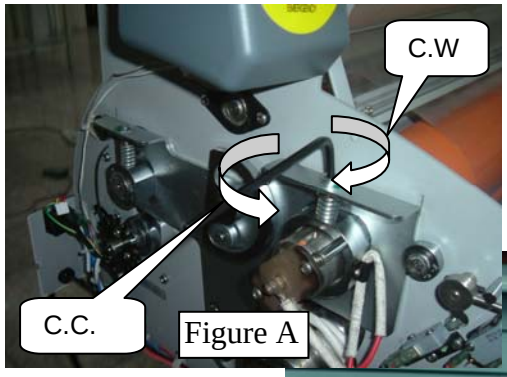




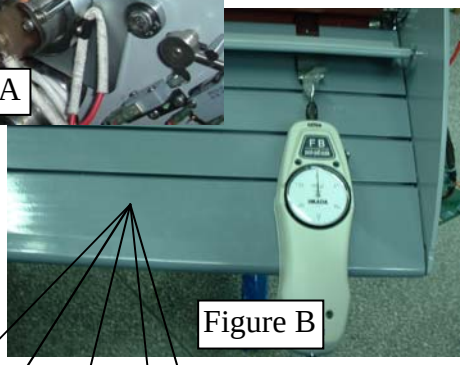
4.2 Adjusting Front and Rear Rollers

Pressure

• ***Use 5/16" or 8mm Allen wrench***
to adjust the roller pressure:
C.W – Increase pressure.
C.C.W – Decrease pressure.

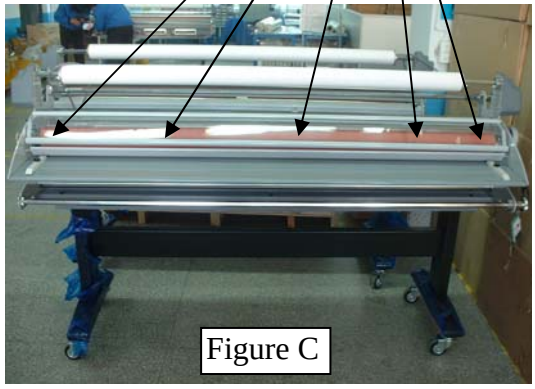


1.*Using Push-Pull Scale* , measure 5 spots as shown on Figure B &C:
Front roller should be 2~3 on Guage



when the machine is running, check that the top and the bottom films are fed in without any wrinkles.

3.Laminating Test – Laminate samples with different thickness of substrates.



4.Check above steps 2 through 3 with 1.5mil & 5mil films.

5. Installing Options

Note:

Only on RSH-1650 model and these options are to be installed by an authorized RS reseller.

1. Installing the Front Feeder

a. Install the Left and Right Front Feed option on the inside of the front frames using four 9/16” hexagon bolts on each side. Figure 1

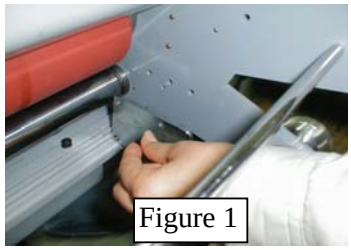


Figure 1

2. Installing the Rear Rewinder

a. Remove the left and right covers by using a Phillips screwdriv (four screws on each side cover) (Figures 2 & 3).

Figure 2

Figure 3

b. Remove the lever knob screw and lever (Figure 4).

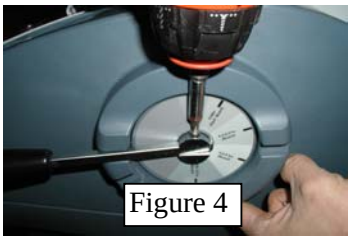


Figure 4

c. Remove the rear cover by removing all 10 screws (4 top, 4 bottom, and 1 on each side) (Figure 5 & 6).

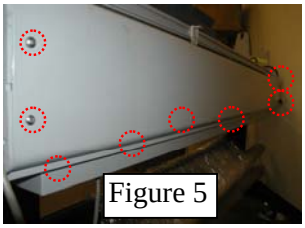


Figure 5

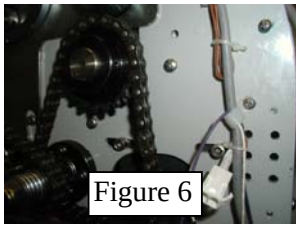


Figure 6

d. Disassemble the power switch bracket and place the left rewinder outside of the frame; fasten with round head 5/16 (9mm) Phillips screws (included in the option kit). Then, reinstall the power switch bracket (Figure 7).

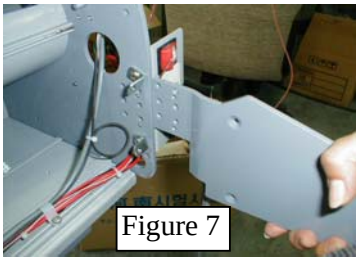


Figure 7

e. Install the right rewind on the outside of the frame and connect the motor wire connection to rear wire (Figures 8 & 9).

f. Reinstall the rear cover.

g. Reinstall the side covers.

h. Reinstall the lever knob and screw.

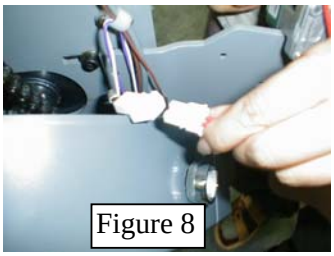


Figure 8

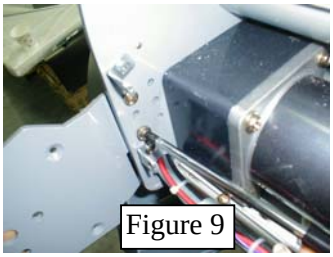


Figure 9

6. Parts List

6.1 RSH-1650 Parts List

RSH-1650

NO	Part N/O	Part Name	Q'TY
1	13500X001A	CASTER-STAND1	2
2	13500X002A	CASTER-STAND2	2
3	WSB16038D0	WASHER-SPRING	4
4	212LR1003A	STAND-FRAME	2
5	212LR1005C	STAND-CENTER	1
6	BHE08015D2	BOLT	20
7	WSB08020D2	WASHER-SPRING	28
8	NHB08065D2	NUT	8
9	BHE08100D2	BOLT	8
10	212LR2003A	STAND TOP	1
11	013LR3006A	FRAME-BASE	1
12	BHE06020D2	BOLT	14
13	WSB06015D2	WASHER-SPRING	10
14	MBC05030D2	SCREW BH	10
15	211003002B	BLOWER-ASS'Y	3
16	MBC04008D2	SCREW BH	45
17	WSB04010D2	WASHER-SPRING	52
18	141LR3001B	BRACKET-PCB	1
19	23200X001A	SUPPORT-B/K PCB	10
20	350LR3006A	PCB-MAIN ASS'Y	1
21	MBC04010D2	SCREW-BH	12
22	34000S008A	POWER TRANSFORMER	1
23	013LR2010A	FRAME-L	1
24	013LR2011A	FRAME-R	1
25	013LR2009B	FRAME-FRONT	1
26	214LR3003A	MASH-FRAME,F	3
27	138LR4009A	SPRING-HEATER SUPPORT	6
28	133LR2007A	ROLLER-LAMI, LO	1
29	141LR4036A	BRACKET-SENSOR	1
	138LR4008A	SPRING-PRESSURE	4
31	013LR3005A	FRAME-CENTER	1
32	NHB05038D2	NUT	12
33	21000S019A	MOTOR-MAIN	1
34	013LR2013A	FRAME-GUIDE,PAPER	1
35	142LR4002A	SPACER-GUIDE	2
36	133LR2007B	ROLLER-LAMI, UP	1
37	122LR4008A	BUSH-ROLLER,LAMI LO	2
38	12200X012A	DU-BUSH	4
39	133LR2009A	ROLLER-PULL,LO	1
40	141LR2011A	PLATE-PRESSURE,L	1
41	141LR2012A	PLATE-PRESSURE,R	1
42	120LR3002A	SHAFT-CAM	1
43	122CR4002A	BEARING-CAM	2

NO	Part N/O	Part Name	Q'TY
44	RC000800C8	SNAP RING	2
45	124LR4002A	CAM-ROLLE Cu+ Ni+ Cr	2
46	SKE05015D2	M5*15 FZB	4
47	122LR4004A	BUSH-PLATE PRESSURE	6
48	RC001500C8	SNAP RING	8
49	133LR2008A	ROLLER-PULL,UP	1
50	122LR4007B	BUSH-ROLLER,LAMI UP	2
51	122LR4009A	BUSH-ROLLER,PULL UP	2
52	111LR4014A	BOLT-PRESSURE	4
53	WPB06016A6	WASHER-PLAIN	4
54	NHB04032D2	NUT	2
55	120LR4001B	SHAFT-TABLE	1
56	015LR3005A	BAR-IDLE,UP	1
57	12200X016A	BEARING-IDLE	2
58	141LR4012A	PLATE-BEARING	2
59	015LR3005B	BAR-IDLE,LO	1
60	12200X020A	BEARING-IDLE,LO	2
61	12200X014A	DU BUSH	2
62	013LR2012B	FRAME-SENSOR	1
63	223LR2003A	HEATER-ASS'Y	2
64	122LR4010A	BUSH-ROLLER,PULL LO	2
65	12200X013A	DU BUSH	4
66	12200X015A	DU BUSH	2
67	313LR3001A	SENSOR-ASS'Y	2
68	140LR4002A	HOLDER-SHAFT,T	1
69	381LR4032A	WIRE-REMOTE	1
70	12200X022A	BEARING-RADIAL TRUST	5
71	381LR4046A	WIRE-COUNT	1
72	381LR4045A	WIRE-LENGTH	1
73	013LR3002B	FRAME-CUTTER	1
74	023LR3003A	KNOB-CUTTER,C	1
75	140LR3001A	HOLDER-CUTTER,C	1
76	213LR4001A	CUTTER-CROSS	1
77	138LR4001A	SPRING-CROSS,CUTTER	1
78	NHB03024D2	NUT-BRACKET SWITCH	5
79	MPC03006D2	SCREW PH	6
80	12200X002A	DU BUSH	2
81	RC001000C8	SNAP RING	2
82	32500X0005	FUSE-MAIN	2
83	36600X002A	FUSE BLOCK	1
84	021LR3003A	CASE-SENSOR,UP	2
85	021LR3004A	CASE-SENSOR,LO	2
86	381LR4035A	WIRE-MOTOR	1
87	381LR4027E	WIRE-SENSOR	1
88	381LR4048A	WIRE-TAKE UP2	1
89	111LR4004A	BOLT-CORE	8
90	141LR4016A	BRACKET-HEATER	2
91	120LR3004B	SHAFT-FILM,LO	2

NO	Part N/O	Part Name	Q'TY
92	143LR3001A	SUPPORTER-SHAFT,LO	2
93	141LR4005A	PLATE-SHAFT,FILM	3
94	140LR4001A	HOLDER-SHAFT,FILM	2
95	147LR4002A	PAD-TENSION	2
96	141LR4011A	BRACKET-HEATER,STOPPER	4
97	12200X009A	DU BUSH	2
98	WSB03007D2	WASHER-SPRING	8
99	138LR4002A	SPRING-FILM,TENSION	2
100	125LR4001A	HANDLE-TENSION	2
101	124LR3001A	CORE-57	6
102	142LR4001A	SPACER-HEATER,BKT	4
103	MBC04040D2	SCREW BH	4
104	141LR4009A	BRACKET-REAR COVER	4
105	MBC05010D2	SCREW BH	8
106	WSB05013D2	WASHER-SPRING	30
107	023LR4002A	KNOB-BOLT,GUIDE	2
108	111LR4006A	BOLT-GUIDE	2
109	120LR4002B	SHAFT-TAKE UP	1
110	113LR4001A	WASHER TAKE UP	4
111	130LR4005A	GEAR-TAKE UP	1
112	141LR4006A	PLATE-SLIP	1
113	138LR4006A	SPRING-SLIP	2
114	WPB08016A6	WASHER-PLAIN	3
115	141LR4003A	BRACKET-MOTOR	1
116	130LR4004A	GEAR-MOTOR	2
117	RE000400D2	E-RING	1
118	21000S027A	MOTOR-AC	1
119	021LR2003A	COVER-TAKE UP,L	1
120	021LR2004A	COVER-TAKE UP,R	1
121	36400X003A	SWITCH-POWER	1
122	MBC04006D2	SCREW BH	37
123	112004001C	NUT	1
124	014LR1003B	TABLE-FRONT	1
125	145LR3001A	GUIDE-DOCUMENT	2
126	SKE04010D2	SCREW-SET	3
127	SKE04015D2	SCREW-SET	2
128	122LR4006A	BUSH-PULLEY	1
129	134LR4002A	PULLEY-CHAIN	1
130	BHE08045D2	BOLT	1
131	141LR4007A	BRACKET-SWITCH,EU	1
132	36400X002A	SWITCH-MAIN	1
133	36400X001A	SWITCH-EMERGENCY	2
134	23300X001A	BUSHING-CORD,EU	1
135	380LR4001A	POWER CORD-EU	1
136	SKE05015D2	SCREW-SET	4
137	SKE06010D2	SCREW-SET	1
138	SKE06015D2	SCREW-SET	1
139	SKE05010D2	SCREW-SET	2

NO	Part N/O	Part Name	Q'TY
140	021LR2001A	COVER-L	1
141	032LR4008A	SHEET-CUTTER	1
142	381LR4043A	WIRE-SAFETY SWITCH	1
143	131LR4004A	SPROCKET-MOTOR	1
144	131LR4016A	SPROCKET-ROLLER,LAMI	1
145	WPB04008D2	WASHER-PLAIN	5
146	147LR4001A	PAD-SLIP	2
147	131LR4015A	SPROCKET-ROLLER,PULL	1
148	WPB13025A6	WASHER-PLAIN	3
149	MBC04018D2	SCREW BH	7
150	112004001B	NUT	1
151	136LR4004B	CHAIN-ROLLER	1
152	136LR4004A	CHAIN-ROLLER	1
153	011LR2003A	COVER-REAR	1
154	021LR2002A	COVER-R	1
155	032LR3004A	SHEET-FUNC	1
156	032LR4010A	SHEET-PRESSURE-EU,AU	1
157	023LR3006A	BUTTON-FUNC	1
158	350LR3007A	PCB-SUB ASS'Y	1
159	144LR4001A	CLAMPER-LEVER	1
160	125LR4003A	LEVER-PRESSURE	1
161	023LR4001A	KNOB-LEVER	1
162	MFC04008D2	SCREW FH	6
163	365LR4003A	SWITCH-FOOT ASS'Y	1
164	025LR4001A	CASE-REMOCON ASS'Y	1
165	350CR4001A	PCB-REMOCON ASS'Y	1
166	23300X008A	CABLE GRAND	2
167	381LR4055A	WIRE-UP HEATER 2,EU	1
168	138LR4014A	SPRING-HEATER	4
169	381LR4020B	WIRE-FUSE,EU	1
170	381LR4029A	WIRE-LO HEATER,EU	2
171	381LR4030A	WIRE-UP HEATER,EU	2
172	381LR4013B	WIRE-POWER S/W,EU	1
173	381LR4054A	WIRE-LO HEATER 2,EU	1
174	381LR4047A	WIRE-EMER	1
175	381LR4044A	WIRE-MAIN	1
176	1PC03006D2	SCREW TAP TATE PH	2
177	24000X003A	TAPE-TEFLON	1
178	MPC03014D2	SCREW PH	4
179	12200X025A	BEARING-SLIP	2
180	141LR4015A	BRACKET-MICRO SWITCH	1
181	36400X014A	SWITCH MICRO-SAFETY COVER	2
182	MBC05018D2	SCREW BH	4
183	MFC05018D2	SCREW FH	6
184	MFC04018D2	SCREW FH	4
185	013LR3014A	FRAME-FRONT TENSION,R	1
186	013LR3015A	FRAME-FRONT TENSION,L	1
187	141LR4022D	BRACKET-SAFETY COVER	1

NO	Part N/O	Part Name	Q'TY
188	WPB15020A6	WASHER-PLAIN	2
189	RE000600D2	E-RING	1
190	381LR4036A	WIRE-T/FUSE,UP	1
191	140LR4005A	HOLDER-SLIP	1
192	141LR4015B	BRACKET-MICRO SWITCH	1
193	140LR4006A	HOLDER-SLIP(IN)	2
194	021LR1003A	COVER-TAKE UP,2	1
195	120LR4003A	SHAFT-SLIP	1
196	131LR4013A	SPROCKET-SLIP	1
197	147LR4007A	PAD-SLIP	1
198	131LR4014A	SPROCKET-SLIP(IN)	1
199	140LR4003A	HOLDER-SAFETY COVER	4
200	140LR4004C	HOLDER ASS'Y SAFETY COVER	1
201	140LR4004B	HOLDER ASS'Y SAFETY COVER	1
202	140LR4004A	HOLDER ASS'Y SAFETY COVER	1
203	140LR4004D	HOLDER ASS'Y SAFETY COVER	1
204	013LR4002A	SAFETY COVER FRAME-L	1
205	021LR3005A	SAFETY COVER	1
206	141LR4022A	BRACKET-SAFETY COVER	1
207	013LR4001A	SAFETY COVER FRAME-R	1
208	111LR4009A	BOLT- SAFETY COVER	1
209	138LR4010A	SPRING-SAFETY COVER	1
210	013LR3011A	FRAME-REWINDER,R	1
211	013LR3012A	FRAME-REWINDER,L	1
212	363LR4001D	BIMETAL-HEATER	2
213	TFH04018D2	SCREW FH	6
214	TFH04035D2	SCREW FH	8
215	381LR4037A	WIRE-T/FUSE,LO	1
216	010LR4001A	ENCODER-LENGTH SENSOR,A	1
217	141LR4023A	BRACKET-SENSOR PCB	1
218	381LR4042A	WIRE-EMER 2	1
219	350LR4002A	PCB-LENGTH ASS'Y	1
220	31300S002A	OPTICAL FIBER AMP	1
221	140LR4007A	HOLDER-SENSOR COUNT	1
222	2PC03006D2	SCREW TAP TITE PH	2
223	31400S001A	OPTICAL FIBER CABLE	1
224	141LR4024A	BRACKET-ENCODER	1
225	212LR1004A	STAND-BASE	2
226	021LR3006A	BRACKET-CLAMPER LEVER	1
227	12200X005A	BEARING-RADIAL TRUST	1

6.2 RSH-1050 Parts List

RSH-1050

NO	Part	PART NAME	Q'TY
1	13500X001A	CASTER-STAND1	2
2	13500X002A	CASTER-STAND2	2
3	WSB16038D0	WASHER-SPRING	4
4	212LR1003A	STAND-FRAME	2
5	212LR1005A	STAND-CENTER	1
6	BHE08015D2	BOLT	28
7	WSB08020D2	WASHER-SPRING	36
8	NHB08065D2	NUT	8
9	BHE08065D2	BOLT	8
10	212LR1004A	STAND-BASE	2
11	013LR2016A	FRAME-BASE	1
12	BHE06020D2	BOLT	8
13	WSB06015D2	WASHER-SPRING	4
14	MBC04008D2	SCREW BH	41
15	211003002B	BLOWER-ASS'Y	2
16	WSB04010D2	WASHER-SPRING	60
17	MFC04008D2	SCREW FH	15
18	141LR3001B	BRACKET-PCB	1
19	23200X001A	SUPPORT-B/K PCB	8
20	350LR3006D	PCB-MAIN ASS'Y	1
21	MBC05030D2	SCREW BH	8
22	34000S008A	POWER TRANSFORMER	1
23	013LR2021A	FRAME-R	1
24	013LR2020A	FRAME-L	1
25	013LR2009A	FRAME-FRONT	1
26	214LR3003A	MASH-FRAME,F	2
27	WSB03007D2	WASHER-SPRING	6
28	WPB04008D2	WASHER-PLAIN	5
29	WSB05013D2	WASHER-SPRING	30
30	RE000400D2	E-RING	1
31	013LR2017A	FRAME-CENTER	1
32	24000X003B	TAPE-TEFLON	1
33	21000S019A	MOTOR-MAIN	1
34	013LR2013B	FRAME-GUIDE,PAPER	1
35	142LR4002A	SPACER-GUIDE	2
36	133LR2012A	ROLLER-LAMI	2
37	122LR4008A	BUSH-ROLLER,LAMI LO	2
38	12200X012A	DU-BUSH	4
39	133LR2014A	ROLLER-PULL,LO	1
40	141LR2003A	PLATE-PRESSURE,L	1
41	141LR2004A	PLATE-PRESSURE,R	1
42	120LR3001A	SHAFT-CAM	1
43	122CR4002A	BEARING-CAM	2
44	RC000800C8	SNAP RING	2
45	124LR4002A	CAM-ROLLER Cu+ Ni+ Cr	2

NO	Part	PART NAME	Q'TY
46	SKE05015D2	SCREW-SET	4
47	122LR4004A	BUSH-PLATE PRESSURE	6
48	RC001500C8	SNAP RING	7
49	133LR2013A	ROLLER-PULL,UP	1
50	122LR4007A	BUSH-ROLLER,LAMI UP	2
51	122LR4009A	BUSH-ROLLER,PULL UP	2
52	111LR4014A	BOLT-PRESSURE	4
53	WPB06016A6	WASHER-PLAIN	4
54	138LR4008A	SPRING-PRESSURE	4
55	120LR4001A	SHAFT-TABLE	1
56	363LR4001D	BIMETAL-HEATER	2
57	12200X016A	BEARING-IDLE,UP	4
58	141LR4012A	PLATE-BEARING	4
59	015LR3006A	BAR-IDLE	2
60	MPC03014D2	SCREW BH	4
61	12200X014A	DU BUSH	4
62	013LR2012A	FRAME-SENSOR	1
63	223LR2005B	HEATER ASS`Y	2
64	122LR4010A	BUSH-ROLLER,PULL LO	2
65	12200X013A	DU BUSH	4
66	12200X015A	DU BUSH	2
67	313LR3001A	SENSOR-ASS'Y	2
68	140LR4002A	HOLDER-SHAFT,T	1
69	381LR4032A	WIRE-REMOTE	1
70	12200X022A	BEARING-RADIAL TRUST	4
71	12200X005A	BEARING-RADIAL TRUST	1
72	MBC04018D2	SCREW BH	7
73	013LR3002A	FRAME-CUTTER	1
74	023LR3003A	KNOB-CUTTER,C	1
75	140LR3001A	HOLDER-CUTTER,C	1
76	213LR4001A	CUTTER-CROSS	1
77	138LR4001A	SPRING-CROSS,CUTTER	1
78	NHB03024D2	NUT	5
79	MPC03006D2	SCREW PH	3
80	12200X002A	DU BUSH	1
81	RC001000C8	SNAP RING	2
82	32500X0005	FUSE-MAIN	2
83	36600X002A	FUSE BLOCK	1
84	021LR3003A	CASE-SENSOR,UP	2
85	021LR3004A	CASE-SENSOR,LO	2
86	381LR4035B	WIRE-MOTOR	1
87	381LR4027A	WIRE-SENSOR	2
88	TFH04035D2	SCREW FH	8
89	111LR4004A	BOLT-CORE	8
90	141LR4010A	BRACKET-HEATER	2
91	120LR3004A	SHAFT-FILM,LO	1
92	143LR3001A	SUPPORTER-SHAFT,LO	1
93	141LR4005A	PLATE-SHAFT,FILM	3

NO	Part	PART NAME	Q'TY
94	140LR4001A	HOLDER-SHAFT,FILM	2
95	147LR4002A	PAD-TENSION	2
96	141LR4011A	BRACKET-HEATER,STOPPER	4
97	12200X009A	DU BUSH	2
98	TFH04018D2	SCREW FH	6
99	138LR4002A	SPRING-FILM,TENSION	2
100	125LR4001A	HANDLE-TENSION	2
101	124LR3001A	CORE-57	6
102	142LR4001A	SPACER-HEATER,BKT	4
103	MBC04010D2	SCREW-BH	10
104	141LR4009A	BRACKET-REAR COVER	4
105	MBC05010D2	SCREW BH	8
106	MFC04018D2	SCREW FH	4
107	MFC05018D2	SCREW FH	6
108	MBC05018D2	SCREW BH	2
109	120LR4002A	SHAFT-TAKE UP	3
110	113LR4001A	WASHER TAKE UP	2
111	130LR4005A	GEAR-TAKE UP	1
112	141LR4006A	PLATE-SLIP	1
113	138LR4006A	SPRING-SLIP	2
114	WPB08016A6	WASHER-PLAIN	3
115	141LR4003A	BRACKET-MOTOR	1
116	130LR4004A	GEAR-MOTOR	1
117	RE000600D2	E-RING	1
118	21000S027A	MOTOR-AC	1
119	021LR2003A	COVER-TAKE UP,L	1
120	021LR2004A	COVER-TAKE UP,R	1
121	36400X003A	SWITCH-POWER	1
122	NHB05038D2	NUT	12
123	112004001C	NUT	1
124	014LR1003A	TABLE-FRONT	1
125	145LR3001A	GUIDE-DOCUMENT	2
126	111LR4006A	BOLT-GUIDE	2
127	023LR4002A	KNOB-BOLT,GUIDE	2
128	122LR4006A	BUSH-PULLEY	1
129	134LR4002A	PULLEY-CHAIN	1
130	BHE08045D2	BOLT	2
131	141LR4007A	BRACKET-SWITCH,EU	1
132	36400X002A	SWITCH-MAIN	1
133	36400X001A	SWITCH-EMERGENCY	2
134	23300X001A	BUSHING-CORD,EU	1
135	380CR4005A	POWER CORD -CUL	1
136	MBC04040D2	SCREW BH	4
137	SKE06010D2	SCREW-SET	1
138	SKE06015D2	SCREW-SET	1
139	SKE05010D2	SCREW-SET	2
140	021LR2001A	COVER-L	1
141	032LR4008A	SHEET-CUTTER	1

NO	Part	PART NAME	Q'TY
142	MBC04006D2	SCREW BH	37
143	131LR4004A	SPROCKET-MOTOR	1
144	131LR4005A	SPROCKET-ROLLER,LAMI	1
145	NHB04032D2	NUT	2
146	SKE04015D2	SCREW-SET	2
147	131LR4006A	SPROCKET-ROLLER,PULL	1
148	SKE04008D2	SCREW-SET	2
149	WPB13025A6	WASHER-PLAIN	2
150	112004001B	NUT	1
151	136LR4002B	CHAIN-ROLLER	1
152	136LR4002A	CHAIN-ROLLER	1
153	011LR2004A	COVER-REAR	1
154	021LR2002A	COVER-R	1
155	032LR3004A	SHEET-FUNC	1
156	032LR4011A	SHEET-PRESSURE-CUL	1
157	023LR3006A	BUTTON-FUNC	1
158	350LR3007A	PCB-SUB ASS'Y	1
159	144LR4001A	CLAMPER-LEVER	1
160	125LR4003A	LEVER-PRESSURE	1
161	023LR4001A	KNOB-LEVER	1
162	1PC03006D2	SCREW TAP TATE PH	2
163	365LR4003A	SWITCH-FOOT ASS'Y	1
164	025LR4001A	CASE-REMOCON ASS'Y	1
165	350CR4001A	PCB-REMOCON ASS'Y	1
166	23300X008A	CABLE GRAND	2
167	147LR4001A	PAD-SLIP	1
168	123004001A	BALL	2
169	381LR4020B	WIRE-FUSE,EU	1
170	381LR4029B	WIRE-LO HEATER,EU	1
171	381LR4030B	WIRE-UP HEATER,EU	1
172	381LR4013A	WIRE-POWER S/W,EU	1
173	381LR4042B	WIRE-EMER 2	1
174	381LR4047B	WIRE-EMER	1
175	381LR4044A	WIRE-MAIN	1
176	141LR3004A	BRACKET-STAND	2
177	381LR4043A	WIRE-SAFETY SWITCH	1
178	381LR4045B	WIRE-LENGTH	1
179	381LR4046A	WIRE-COUNT	1
180	381LR4048A	WIRE-TAKE UP2	1
181	381LR4054A	WIRE-LO HEATER 2,EU	1
182	381LR4055A	WIRE-UP HEATER 2,EU	1
183	381LR4036A	WIRE-T/FUSE,UP	1
184	381LR4037A	WIRE-T/FUSE,LO	1
185	WPB15020A6	WASHER-PLAIN	2
186	36400X014A	SWITCH MICRO-SAFETY COVER	2
187	141LR4015A	BRACKET-MICRO SWITCH	1
188	141LR4022E	BRACKET-SAFETY COVER	1
189	12200X025A	BEARING-SLIP	2

NO	Part	PART NAME	Q'TY
190	SKE04010D2	SCREW-SET	3
191	140LR4005A	HOLDER-SLIP	1
192	141LR4015B	BRACKET-MICRO SWITCH	1
193	140LR4006A	HOLDER-SLIP(IN)	1
194	021LR1003A	COVER-TAKE UP,2	1
195	120LR4003A	SHAFT-SLIP	1
196	131LR4013A	SPROCKET-SLIP	1
197	147LR4007A	PAD-SLIP	1
198	131LR4014A	SPROCKET-SLIP(IN)	1
199	140LR4003A	HOLDER-SAFETY COVER	4
200	140LR4004C	HOLDER ASS'Y SAFETY COVER	1
201	140LR4004B	HOLDER ASS'Y SAFETY COVER	1
202	140LR4004A	HOLDER ASS'Y SAFETY COVER	1
203	140LR4004D	HOLDER ASS'Y SAFETY COVER	1
204	013LR4002A	SAFETY COVER FRAME-L	1
205	021LR3005B	SAFETY COVER	1
206	141LR4022B	BRACKET-SAFETY COVER	1
207	013LR4001A	SAFETY COVER FRAME-R	1
208	111LR4009A	BOLT- SAFETY COVER	1
209	138LR4010A	SPRING-SAFETY COVER	1
210	138LR4014A	SPRING-HEATER	4
211	141LR4036A	BRACKET-SENSOR	1
212	120LR3003A	SHAFT-FILM,UP	1
213	021LR3006A	BRACKET-CLAMP LEVER	1
214	125LR4002A	HANDLE-LOCATION	1
215	141LR4024A	BRACKET-ENCODER	1
216	010LR4001A	ENCODER-LENGTH SENSOR,A	1
217	141LR4023A	BRACKET-SENSOR PCB	1
218	143LR4001A	STOPPER-LOCATION	1
219	350LR4002A	PCB-LENGTH ASS'Y	1
220	111LR4005A	BOLT-LOCATION,ADJUST	1
221	140LR4007A	HOLDER-SENSOR COUNT	1
222	143LR3002A	SUPPORTER-SHAFT,UP	1
223	31400S001A	OPTICAL FIBER CABLE	1
224	31300S002A	OPTICAL FIBER AMP	1

7. Exploded View

7.1 RSH-1650 Exploded View

Frame L

Frame R

Stand Part and Frame-Base

Frame,Roller and Other View

Wire and Film Shafts

Front Table and Shafts Cover

7.2 RSH-1050 Explode View

Frame L

Frame R

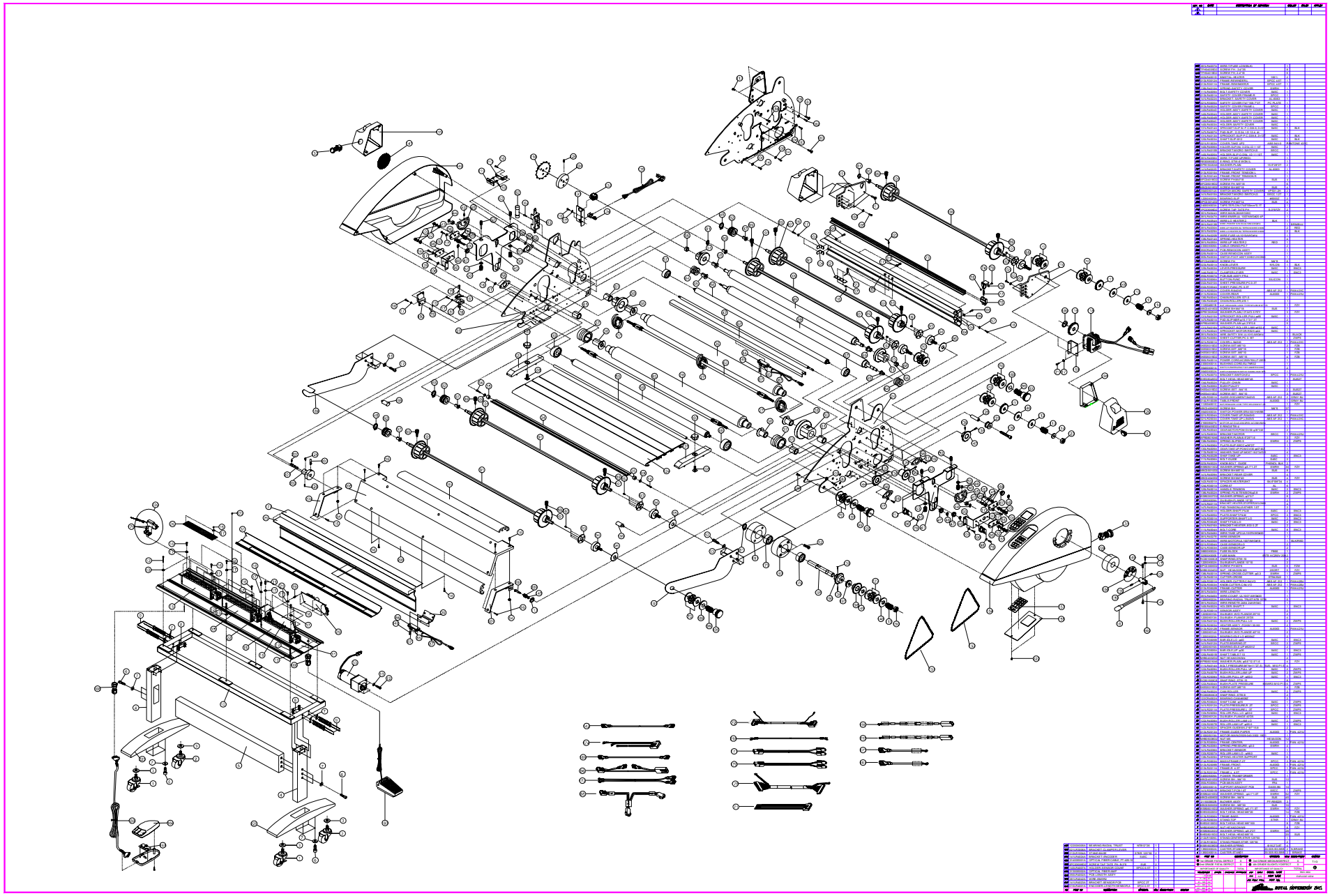
Stand Part and Frame-Base

Frame,Roller and Other View

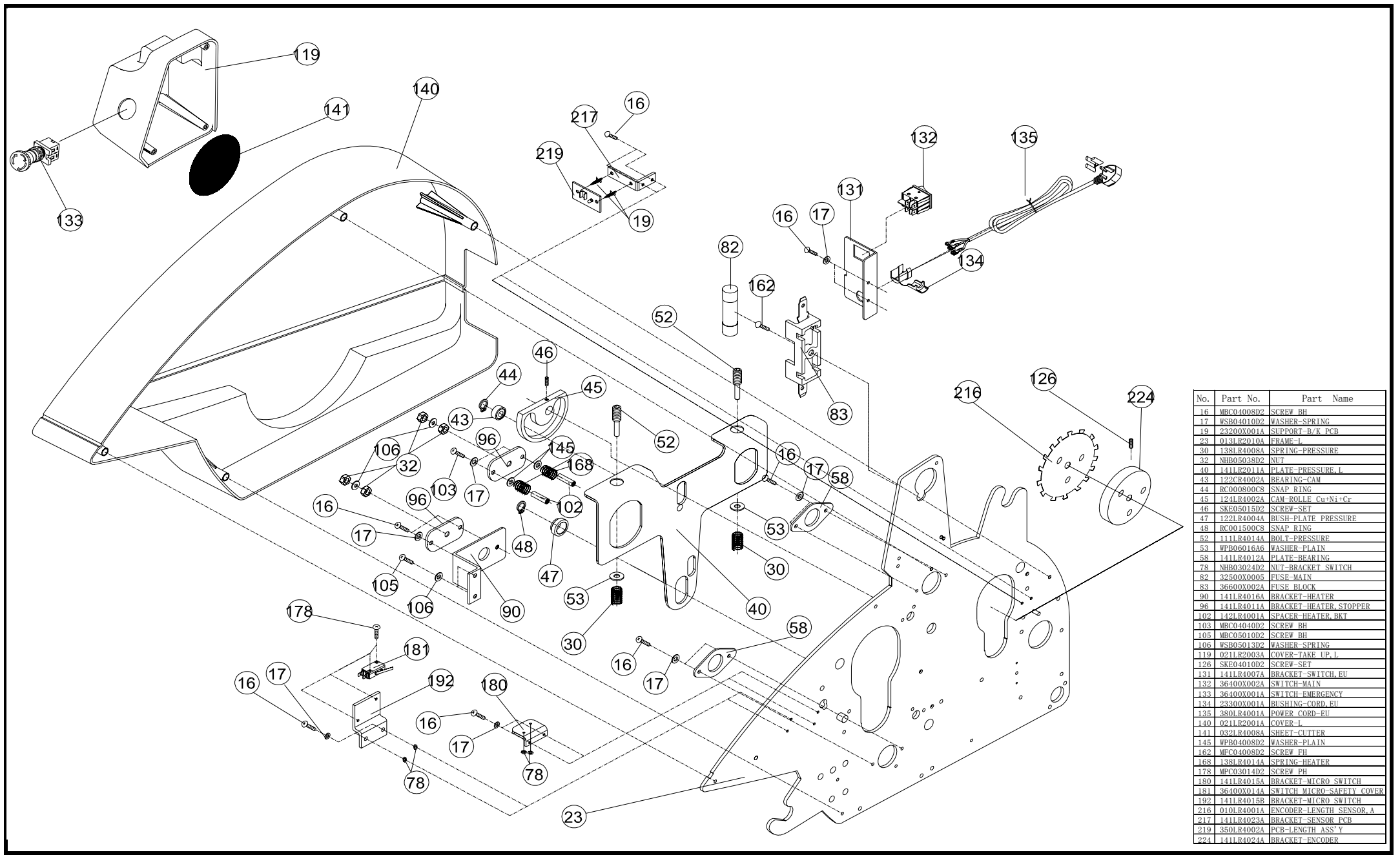
Wire and Film Shafts

Front Table and Shafts Cover

7.1 RSH-1650 Exploded View

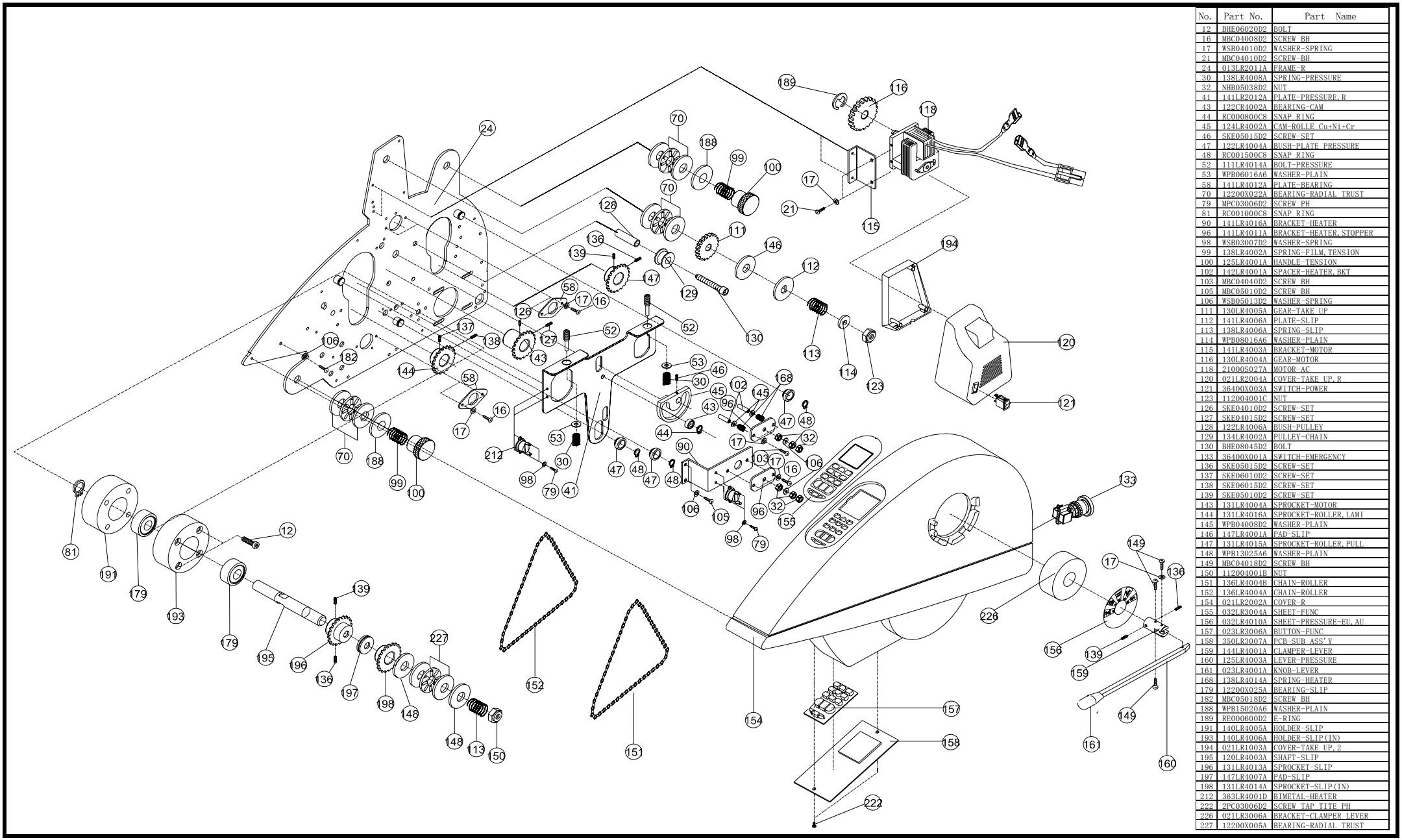


Frame - L



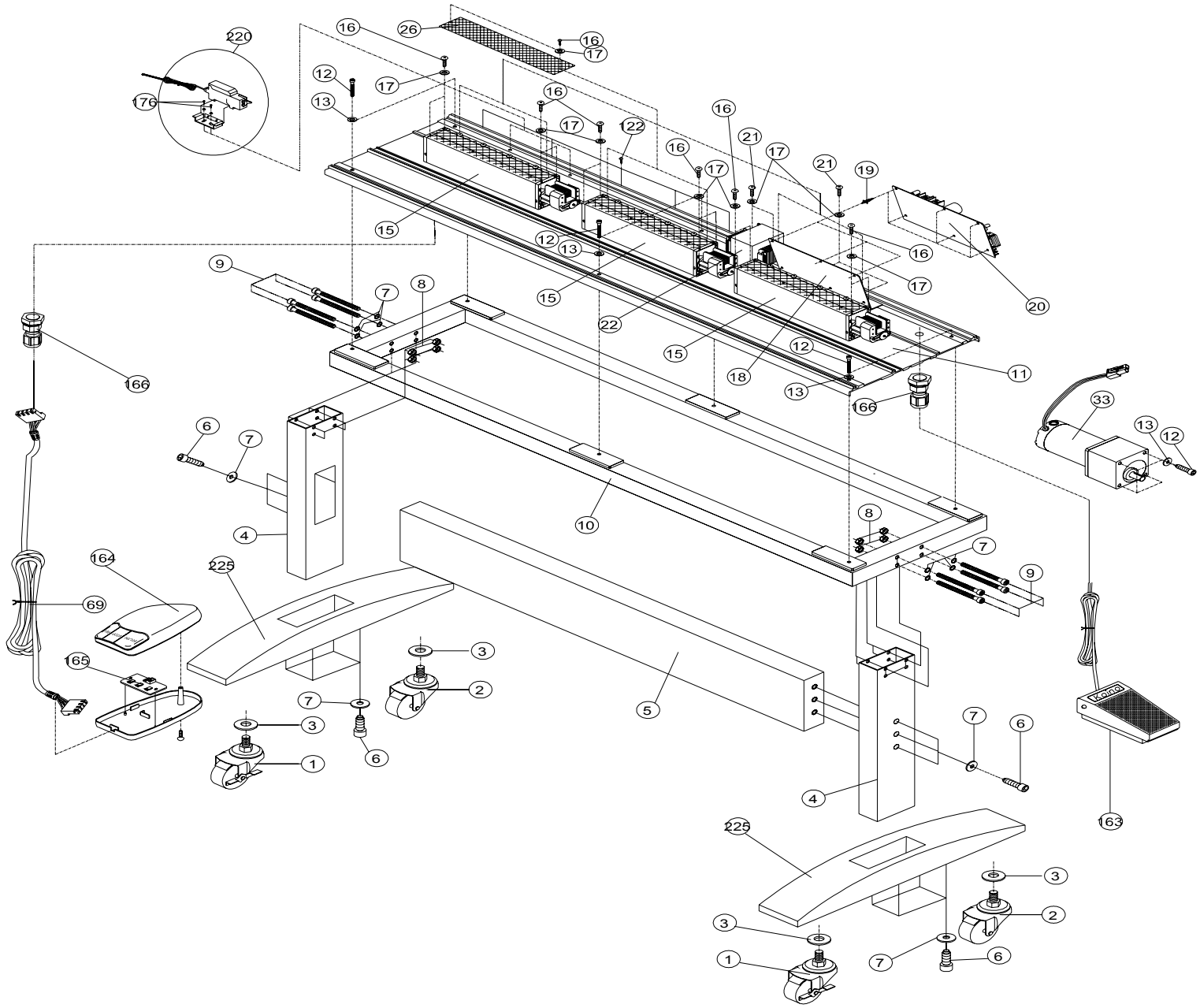
No.	Part No.	Part Name
16	MBC04008D2	SCREW BH
17	WSB04010D2	WASHER-SPRING
19	23200X001A	SUPPORT-B/K PCB
23	013LR2010A	FRAME-L
30	138LR4008A	SPRING-PRESSURE
32	NHB05038D2	NUT
40	141LR2011A	PLATE-PRESSURE,L
43	122CR4002A	BEARING-CAM
44	RC000800C8	SNAP RING
45	124LR4002A	CAM-ROLLE Cu+Ni+Cr
46	SKE05015D2	SCREW-SET
47	122LR4004A	BUSH-PLATE PRESSURE
48	RC001500C8	SNAP RING
52	111LR4014A	BOLT-PRESSURE
53	WPB06016A6	WASHER-PLAIN
58	141LR4012A	PLATE-BEARING
78	NHB03024D2	NUT-BRACKET SWITCH
82	32500X0005	FUSE-MAIN
83	36600X002A	FUSE BLOCK
90	141LR4016A	BRACKET-HEATER
96	141LR4011A	BRACKET-HEATER,STOPPER
102	142LR4001A	SPACER-HEATER,BKT
103	MBC04040D2	SCREW BH
105	MBC05010D2	SCREW BH
106	WSB05013D2	WASHER-SPRING
119	021LR2003A	COVER-TAKE UP,L
126	SKE04010D2	SCREW-SET
131	141LR4007A	BRACKET-SWITCH,EU
132	36400X002A	SWITCH-MAIN
133	36400X001A	SWITCH-EMERGENCY
134	23300X001A	BUSHING-CORD,EU
135	380LR4001A	POWER CORD-EU
140	021LR2001A	COVER-L
141	032LR4008A	SHEET-CUTTER
145	WPB04008D2	WASHER-PLAIN
162	MFC04008D2	SCREW FH
168	138LR4014A	SPRING-HEATER
178	MPC03014D2	SCREW PH
180	141LR4015A	BRACKET-MICRO SWITCH
181	36400X014A	SWITCH MICRO-SAFETY COVER
192	141LR4015B	BRACKET-MICRO SWITCH
216	010LR4001A	ENCODER-LENGTH SENSOR,A
217	141LR4023A	BRACKET-SENSOR PCB
219	350LR4002A	PCB-LENGTH ASS'Y
224	141LR4024A	BRACKET-ENCODER

Frame - R



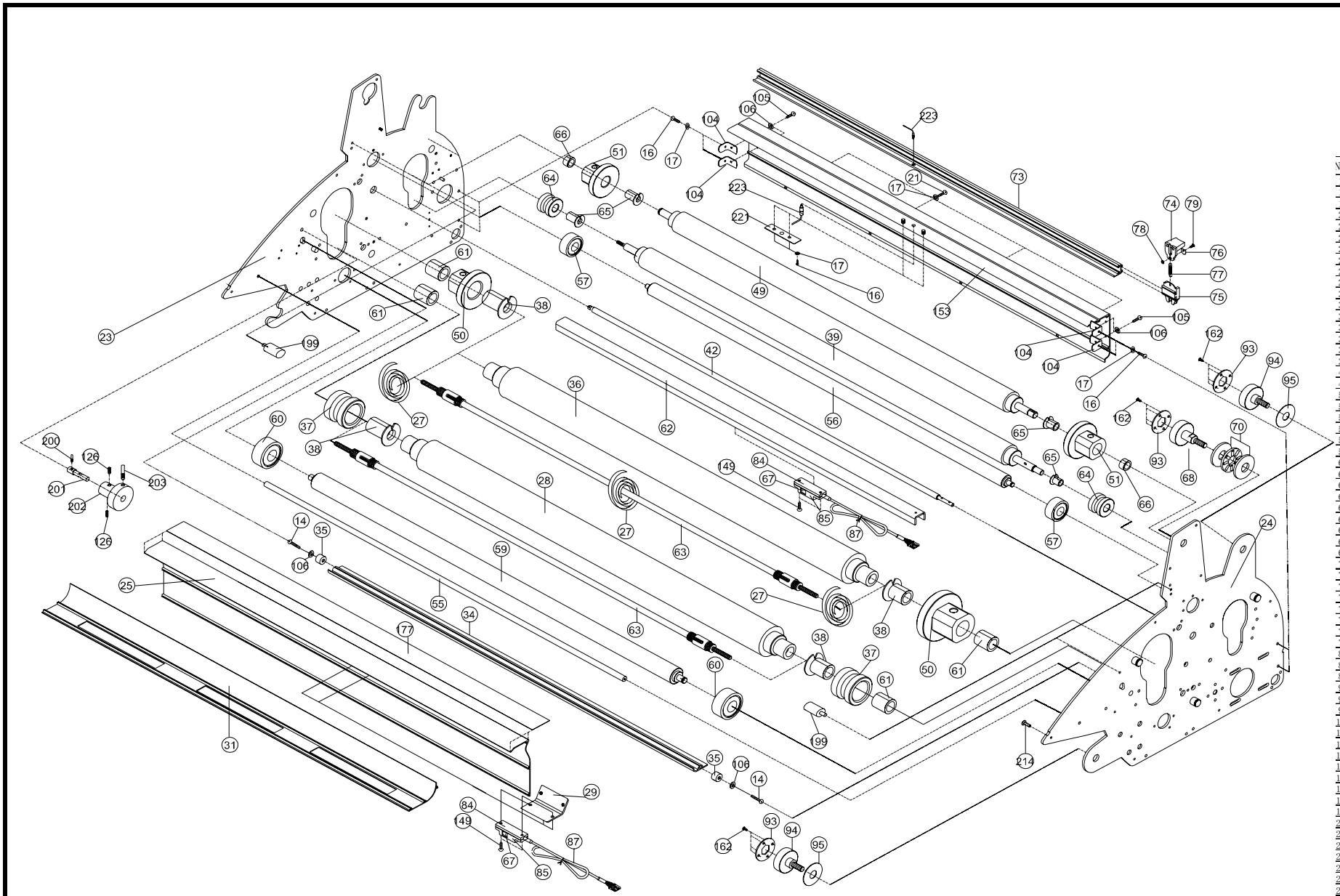
No.	Part No.	Part Name
12	BHE06020D2	BOLT
16	MBC04008D2	SCREW BH
17	WSB04010D2	WASHER-SPRING
21	MBC04010D2	SCREW-BH
24	013LR2011A	FRAME-R
30	138LR4008A	SPRING-PRESSURE
32	NHB05038D2	NUT
41	141LR2012A	PLATE-PRESSURE,R
43	122CR4002A	BEARING-CAM
44	RC000800C8	SNAP RING
45	124LR4002A	CAM-ROLLE Cu+Ni+Cr
46	SKE05015D2	SCREW-SET
47	122LR4004A	BUSH-PLATE PRESSURE
48	RC001500C8	SNAP RING
52	111LR4014A	BOLT-PRESSURE
53	WPB06016A6	WASHER-PLAIN
58	141LR4012A	PLATE-BEARING
70	12200X022A	BEARING-RADIAL TRUST
79	MPC03006D2	SCREW PH
81	RC001000C8	SNAP RING
90	141LR4016A	BRACKET-HEATER
96	141LR4011A	BRACKET-HEATER,STOPPER
98	WSB03007D2	WASHER-SPRING
99	138LR4002A	SPRING-FILM,TENSION
100	125LR4001A	HANDLE-TENSION
102	142LR4001A	SPACER-HEATER,BKT
103	MBC04040D2	SCREW BH
105	MBC05010D2	SCREW BH
106	WSB05013D2	WASHER-SPRING
111	130LR4005A	GEAR-TAKE UP
112	141LR4006A	PLATE-SLIP
113	138LR4006A	SPRING-SLIP
114	WPB08016A6	WASHER-PLAIN
115	141LR4003A	BRACKET-MOTOR
116	130LR4004A	GEAR-MOTOR
118	21000S027A	MOTOR-AC
120	021LR2004A	COVER-TAKE UP,R
121	36400X003A	SWITCH-POWER
123	112004001C	NUT
126	SKE04010D2	SCREW-SET
127	SKE04015D2	SCREW-SET
128	122LR4006A	BUSH-PULLEY
129	134LR4002A	PULLEY-CHAIN
130	BHE08045D2	BOLT
133	36400X001A	SWITCH-EMERGENCY
136	SKE05015D2	SCREW-SET
137	SKE06010D2	SCREW-SET
138	SKE06015D2	SCREW-SET
139	SKE05010D2	SCREW-SET
143	131LR4004A	SPROCKET-MOTOR
144	131LR4016A	SPROCKET-ROLLER,LAMI
145	WPB04008D2	WASHER-PLAIN
146	147LR4001A	PAD-SLIP
147	131LR4015A	SPROCKET-ROLLER,PULL
148	WPB13025A6	WASHER-PLAIN
149	MBC04018D2	SCREW BH
150	112004001B	NUT
151	136LR4004B	CHAIN-ROLLER
152	136LR4004A	CHAIN-ROLLER
154	021LR2002A	COVER-R
155	032LR3004A	SHEET-FUNC
156	032LR4010A	SHEET-PRESSURE-EU,AU
157	023LR3006A	BUTTON-FUNC
158	350LR3007A	PCB-SUB ASS'Y
159	144LR4001A	CLAMPER-LEVER
160	125LR4003A	LEVER-PRESSURE
161	023LR4001A	KNOB-LEVER
168	138LR4014A	SPRING-HEATER
179	12200X025A	BEARING-SLIP
182	MBC05018D2	SCREW BH
188	WPB15020A6	WASHER-PLAIN
189	RE000600D2	E-RING
191	140LR4005A	HOLDER-SLIP
193	140LR4006A	HOLDER-SLIP(IN)
194	021LR1003A	COVER-TAKE UP,2
195	120LR4003A	SHAFT-SLIP
196	131LR4013A	SPROCKET-SLIP
197	147LR4007A	PAD-SLIP
198	131LR4014A	SPROCKET-SLIP(IN)
212	363LR4001D	BIMETAL-HEATER
222	2PC03006D2	SCREW TAP TITE PH
226	021LR3006A	BRACKET-CLAMPER LEVER
227	12200X005A	BEARING-RADIAL TRUST

Stand Part and Frame - Base



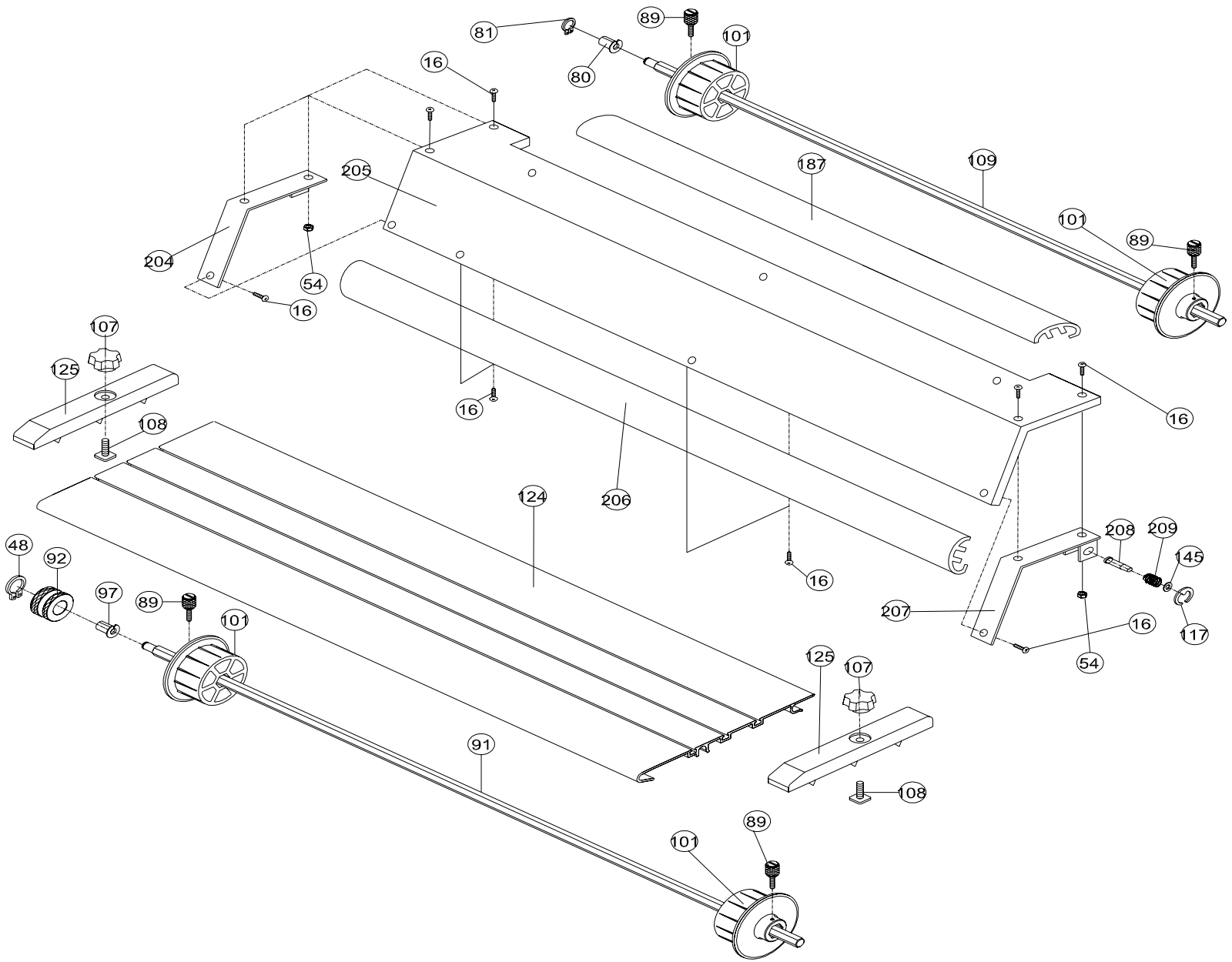
No.	Part No.	Part Name
1	13500X001A	CASTER-STAND1
2	13500X002A	CASTER-STAND2
3	WSB16038D0	WASHER-SPRING
4	212LR1003A	STAND-FRAME
5	212LR1005C	STAND-CENTER
6	BHE08015D2	BOLT
7	WSB08020D2	WASHER-SPRING
8	NHB08065D2	NUT
9	BHE08100D2	BOLT
10	212LR2003A	STAND TOP
11	013LR3006A	FRAME-BASE
12	BHE06020D2	BOLT
13	WSB06015D2	WASHER-SPRING
15	21100S002B	BLOWER-ASS'Y
16	MBC04008D2	SCREW BH
17	WSB04010D2	WASHER-SPRING
18	141LR3001B	BRACKET-PCB
19	23200X001A	SUPPORT-B/K PCB
20	350LR3006A	PCB-MAIN ASS'Y
21	MBC04010D2	SCREW-BH
22	34000S008A	POWER TRANSFORMER
26	214LR3003A	MASH-FRAME,F
33	21000S019A	MOTOR-MAIN
69	381LR4032A	WIRE-REMOTE
122	MBC04006D2	SCREW BH
163	365LR4003A	SWITCH-FOOT ASS'Y
164	025LR4001A	CASE-REMOCON ASS'Y
165	350CR4001A	PCB-REMOCON ASS'Y
166	23300X008A	CABLE GRAND
176	1PC03006D2	SCREW TAP TATE PH
220	31300S002A	OPTICAL FIBER AMP
225	212LR1004A	STAND-BASE

Frame, Roller and Other View



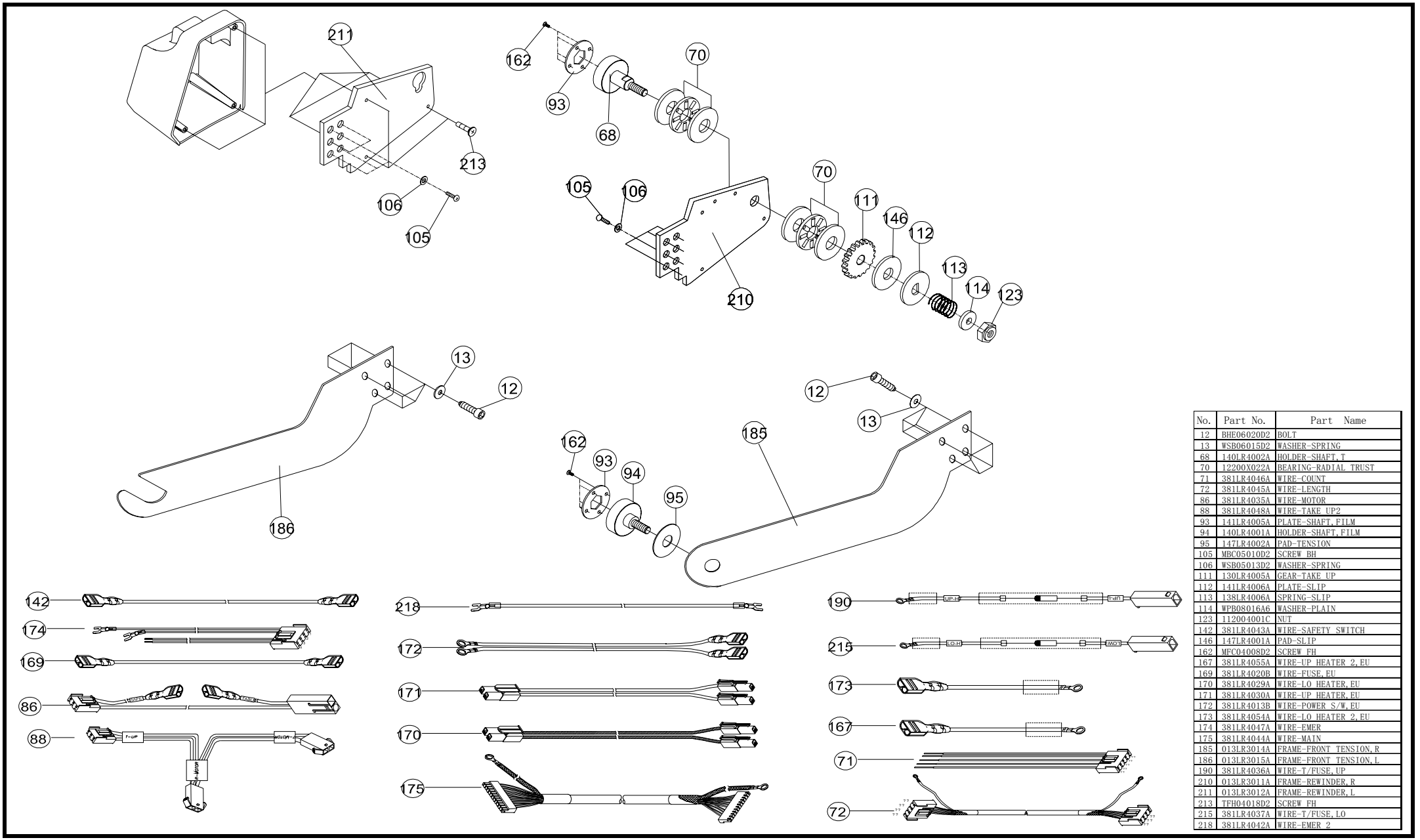
No.	Part No.	Part Name
14	MBC05030D2	SCREW BH
16	MBC04008D2	SCREW BH
17	WSB04010D2	WASHER-SPRING
21	MBC04010D2	SCREW-BH
23	013LR2010A	FRAME-L
24	013LR2011A	FRAME-R
25	013LR2009B	FRAME-FRONT
27	138LR4009A	SPRING-HEATER SUPPORT
28	133LR2007A	ROLLER-LAMI, LO
29	141LR4036A	BRACKET-SENSOR
31	013LR3005A	FRAME-CENTER
34	013LR2013A	FRAME-GUIDE, PAPER
35	142LR4002A	SPACER-GUIDE
36	133LR2007B	ROLLER-LAMI, UP
37	122LR4008A	BUSH-ROLLER, LAMI LO
38	12200X012A	DU-BUSH
39	133LR2009A	ROLLER-PULL, LO
42	120LR3002A	SHAFT-CAM
49	133LR2008A	ROLLER-PULL, UP
50	122LR4007B	BUSH-ROLLER, LAMI UP
51	122LR4009A	BUSH-ROLLER, PULL UP
55	120LR4001B	SHAFT-TABLE
56	015LR3005A	BAR-IDLE, UP
57	12200X016A	BEARING-IDLE
59	015LR3005B	BAR-IDLE, LO
60	12200X020A	BEARING-IDLE, LO
61	12200X014A	DU BUSH
62	013LR2012B	FRAME-SENSOR
63	223LR2003A	HEATER-ASS'Y
64	122LR4010A	BUSH-ROLLER, PULL LO
65	12200X013A	DU BUSH
66	12200X015A	DU BUSH
67	313LR3001A	SENSOR-ASS'Y
68	140LR4002A	HOLDER-SHAFT, T
70	12200X022A	BEARING-RADIAL TRUST
73	013LR3002B	FRAME-CUTTER
74	023LR3003A	KNOB-CUTTER, C
75	140LR3001A	HOLDER-CUTTER, C
76	213LR4001A	CUTTER-CROSS
77	138LR4001A	SPRING-CROSS, CUTTER
78	NHB03024D2	NUT-BRACKET SWITCH
79	MPC03006D2	SCREW PH
84	021LR3003A	CASE-SENSOR, UP
85	021LR3004A	CASE-SENSOR, LO
87	381LR4027E	WIRE-SENSOR
93	141LR4005A	PLATE-SHAFT, FILM
94	140LR4001A	HOLDER-SHAFT, FILM
95	147LR4002A	PAD-TENSION
104	141LR4009A	BRACKET-REAR COVER
105	MBC05010D2	SCREW BH
106	WSB05013D2	WASHER-SPRING
126	SKE04010D2	SCREW-SET
149	MBC04018D2	SCREW BH
153	011LR2003A	COVER-REAR
162	MFC04008D2	SCREW FH
177	24000X003A	TAPE-TEFLON
199	140LR4003A	HOLDER-SAFETY COVER
200	140LR4004C	HOLDER ASS'Y SAFETY COVER
201	140LR4004B	HOLDER ASS'Y SAFETY COVER
202	140LR4004A	HOLDER ASS'Y SAFETY COVER
203	140LR4004D	HOLDER ASS'Y SAFETY COVER
214	TFH04035D2	SCREW FH
221	140LR4007A	HOLDER-SENSOR COUNT
223	31400S001A	OPTICAL FIBER CABLE

Wire and Film Shafts



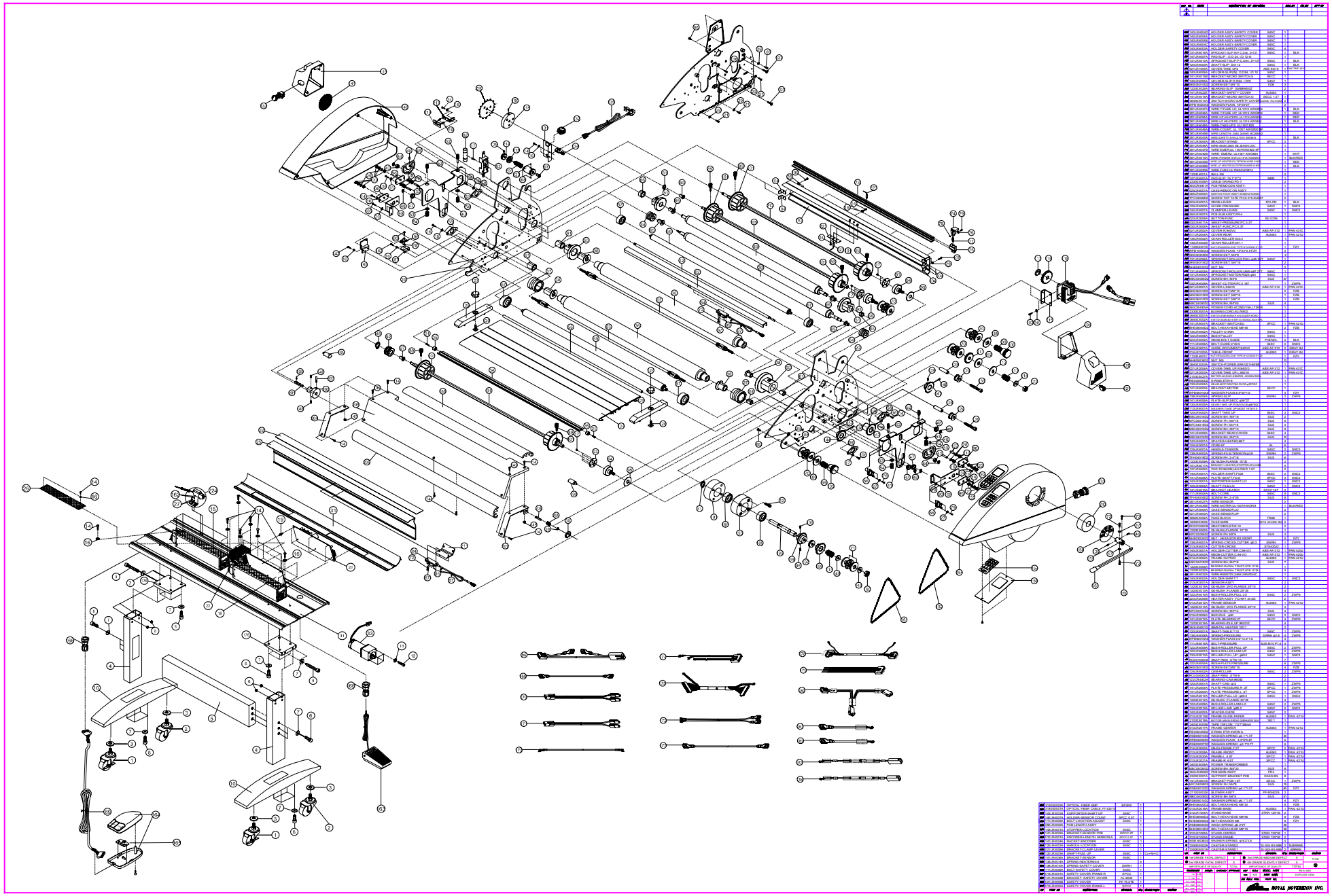
No.	Part No.	Part Name
16	MBC04008D2	SCREW BH
48	RC001500C8	SNAP RING
54	NHB04032D2	NUT
80	12200X002A	DU BUSH
81	RC001000C8	SNAP RING
89	111LR4004A	BOLT-CORE
91	120LR3004B	SHAFT-FILM,LO
92	143LR3001A	SUPPORTER-SHAFT,LO
97	12200X009A	DU BUSH
101	124LR3001A	CORE-57
107	023LR4002A	KNOB-BOLT,GUIDE
108	111LR4006A	BOLT-GUIDE
109	120LR4002B	SHAFT-TAKE UP
117	RE000400D2	E-RING
124	014LR1003B	TABLE-FRONT
125	145LR3001A	GUIDE-DOCUMENT
145	WPB04008D2	WASHER-PLAIN
187	141LR4022D	BRACKET-SAFETY COVER
204	013LR4002A	SAFETY COVER FRAME-L
205	021LR3005A	SAFETY COVER
206	141LR4022A	BRACKET-SAFETY COVER
207	013LR4001A	SAFETY COVER FRAME-R
208	111LR4009A	BOLT- SAFETY COVER
209	138LR4010A	SPRING-SAFETY COVER

Front Table and Safety Cover

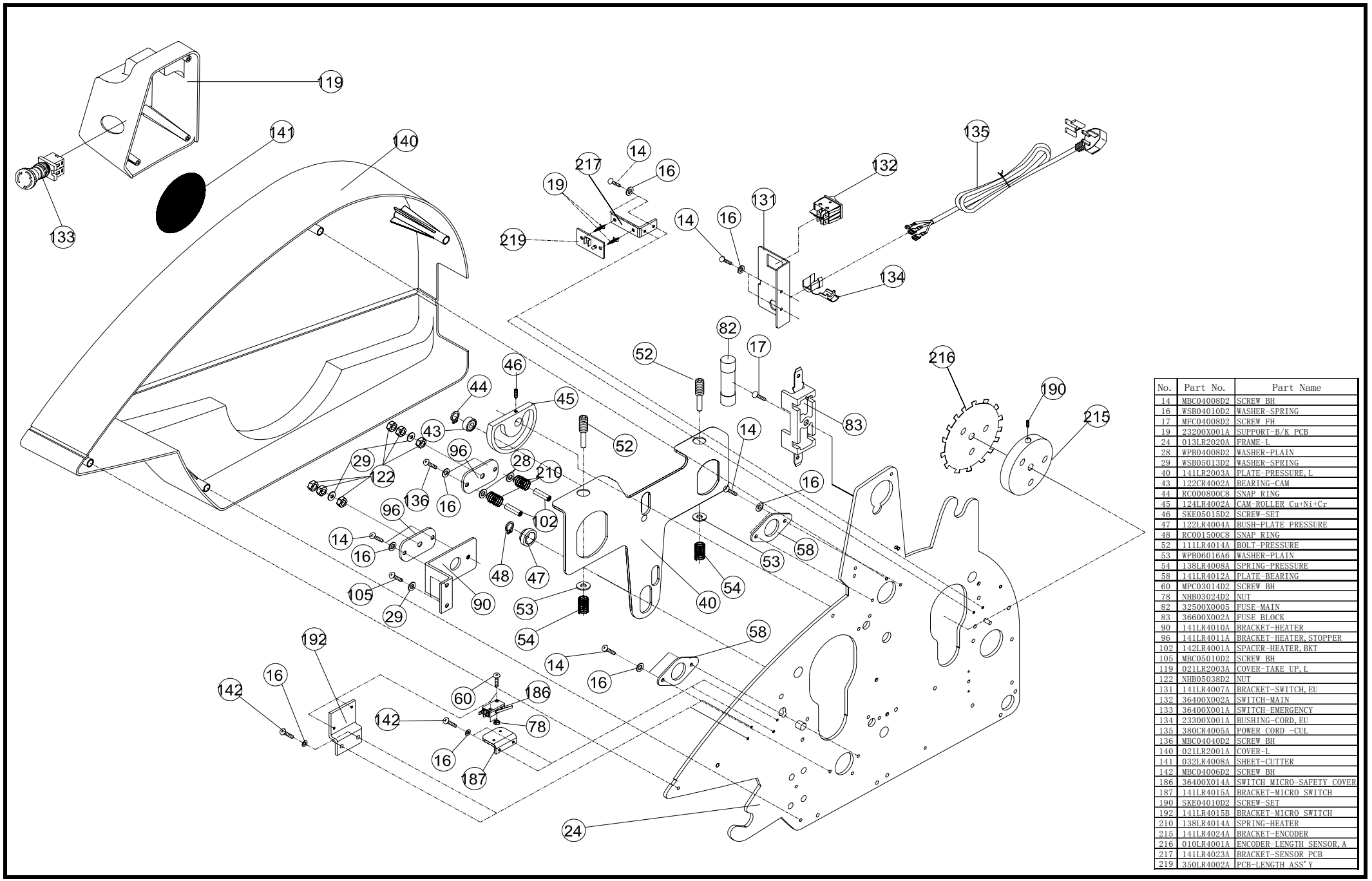


No.	Part No.	Part Name
12	BHE06020D2	BOLT
13	WSB06015D2	WASHER-SPRING
68	140LR4002A	HOLDER-SHAFT,T
70	12200X022A	BEARING-RADIAL TRUST
71	381LR4046A	WIRE-COUNT
72	381LR4045A	WIRE-LENGTH
86	381LR4035A	WIRE-MOTOR
88	381LR4048A	WIRE-TAKE UP2
93	141LR4005A	PLATE-SHAFT,FILM
94	140LR4001A	HOLDER-SHAFT,FILM
95	147LR4002A	PAD-TENSION
105	MBC05010D2	SCREW BH
106	WSB05013D2	WASHER-SPRING
111	130LR4005A	GEAR-TAKE UP
112	141LR4006A	PLATE-SLIP
113	138LR4006A	SPRING-SLIP
114	WPB08016A6	WASHER-PLAIN
123	112004001C	NUT
142	381LR4043A	WIRE-SAFETY SWITCH
146	147LR4001A	PAD-SLIP
162	MFC04008D2	SCREW FH
167	381LR4055A	WIRE-UP HEATER 2,EU
169	381LR4020B	WIRE-FUSE,EU
170	381LR4029A	WIRE-LO HEATER,EU
171	381LR4030A	WIRE-UP HEATER,EU
172	381LR4013B	WIRE-POWER S/W,EU
173	381LR4054A	WIRE-LO HEATER 2,EU
174	381LR4047A	WIRE-EMER
175	381LR4044A	WIRE-MAIN
185	013LR3014A	FRAME-FRONT TENSION,R
186	013LR3015A	FRAME-FRONT TENSION,L
190	381LR4036A	WIRE-T/FUSE,UP
210	013LR3011A	FRAME-REWINDER,R
211	013LR3012A	FRAME-REWINDER,L
213	TFH04018D2	SCREW FH
215	381LR4037A	WIRE-T/FUSE,LO
218	381LR4042A	WIRE-EMER 2

7.2 RSH-1050 Exploded View

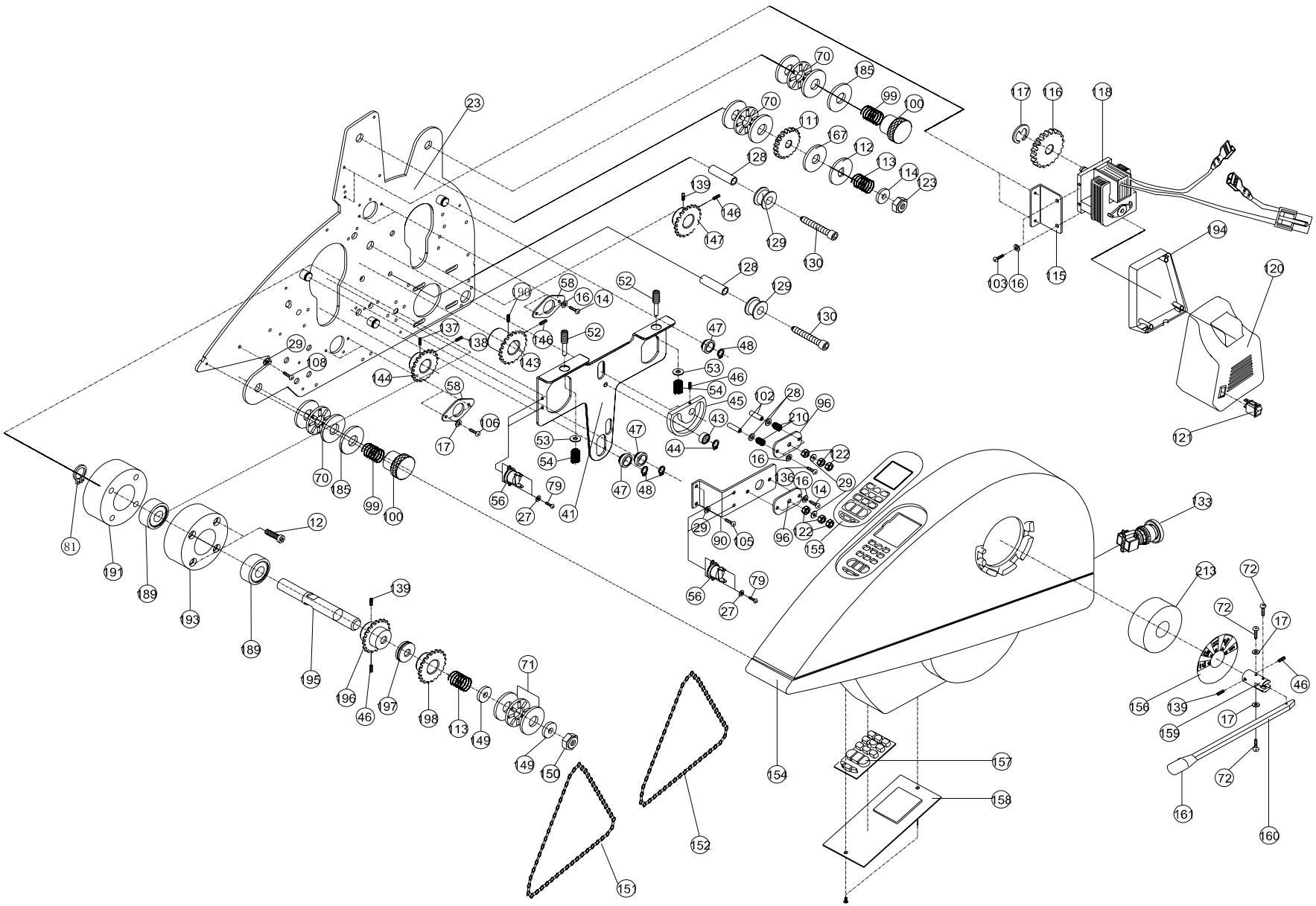


Frame - L



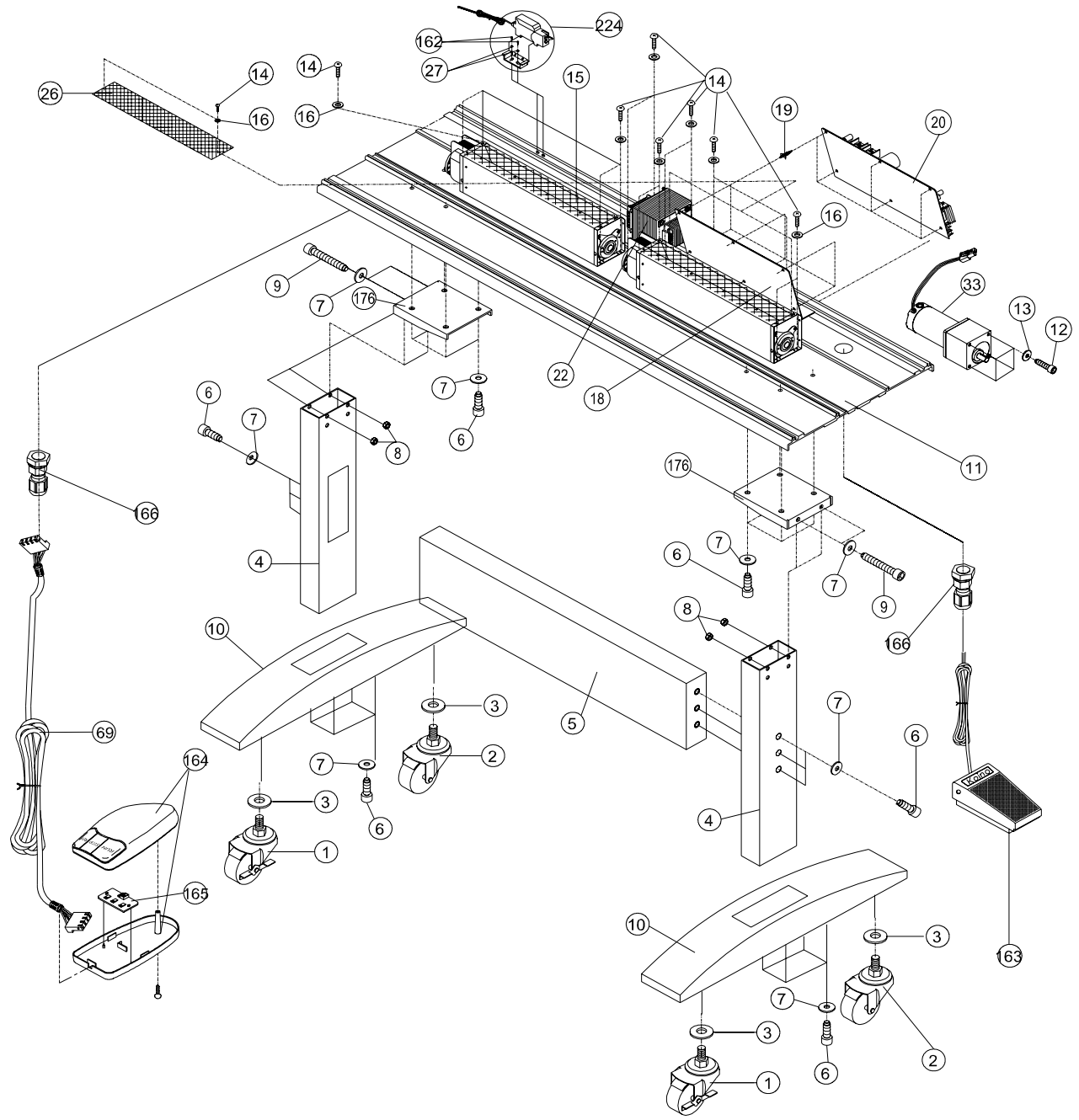
No.	Part No.	Part Name
14	MBC04008D2	SCREW BH
16	WSB04010D2	WASHER-SPRING
17	MFC04008D2	SCREW FH
19	23200X001A	SUPPORT-B/K PCB
24	013LR2020A	FRAME-L
28	WPB04008D2	WASHER-PLAIN
29	WSB05013D2	WASHER-SPRING
40	141LR2003A	PLATE-PRESSURE,L
43	122CR4002A	BEARING-CAM
44	RC000800C8	SNAP RING
45	124LR4002A	CAM-ROLLER Cu+Ni+Cr
46	SKE05015D2	SCREW-SET
47	122LR4004A	BUSH-PLATE PRESSURE
48	RC001500C8	SNAP RING
52	111LR4014A	BOLT-PRESSURE
53	WPB06016A6	WASHER-PLAIN
54	138LR4008A	SPRING-PRESSURE
58	141LR4012A	PLATE-BEARING
60	MPC03014D2	SCREW BH
78	NHB03024D2	NUT
82	32500X0005	FUSE-MAIN
83	36600X002A	FUSE BLOCK
90	141LR4010A	BRACKET-HEATER
96	141LR4011A	BRACKET-HEATER,STOPPER
102	142LR4001A	SPACER-HEATER,BKT
105	MBC05010D2	SCREW BH
119	021LR2003A	COVER-TAKE UP,L
122	NHB05038D2	NUT
131	141LR4007A	BRACKET-SWITCH,EU
132	36400X002A	SWITCH-MAIN
133	36400X001A	SWITCH-EMERGENCY
134	23300X001A	BUSHING-CORD,EU
135	380CR4005A	POWER CORD -CUL
136	MBC04040D2	SCREW BH
140	021LR2001A	COVER-L
141	032LR4008A	SHEET-CUTTER
142	MBC04006D2	SCREW BH
186	36400X014A	SWITCH MICRO-SAFETY COVER
187	141LR4015A	BRACKET-MICRO SWITCH
190	SKE04010D2	SCREW-SET
192	141LR4015B	BRACKET-MICRO SWITCH
210	138LR4014A	SPRING-HEATER
215	141LR4024A	BRACKET-ENCODER
216	010LR4001A	ENCODER-LENGTH SENSOR,A
217	141LR4023A	BRACKET-SENSOR PCB
219	350LR4002A	PCB-LENGTH ASS'Y

Frame - R



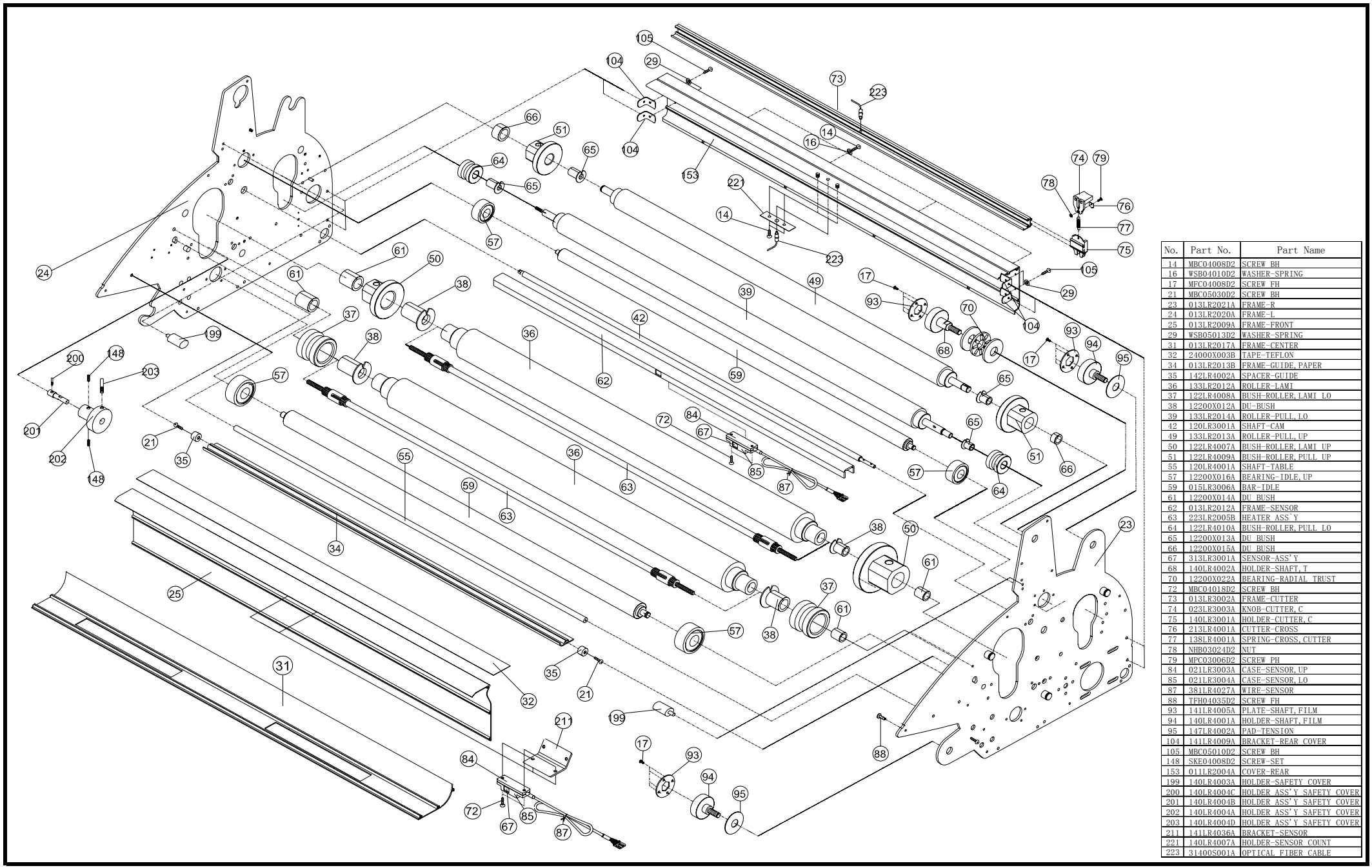
No.	Part No.	Part Name
12	BHE06020D2	BOLT
14	MBC04008D2	SCREW BH
16	WSB04010D2	WASHER-SPRING
17	MFC04008D2	SCREW FH
23	013LR2021A	FRAME-R
27	WSB03007D2	WASHER-SPRING
28	WPB04008D2	WASHER-PLAIN
29	WSB05013D2	WASHER-SPRING
41	141LR2004A	PLATE-PRESSURE,R
43	122CR4002A	BEARING-CAM
44	RC000800C8	SNAP RING
45	124LR4002A	CAM-ROLLER Cu+Ni+Cr
46	SKE05015D2	SCREW-SET
47	122LR4004A	BUSH-PLATE PRESSURE
48	RC001500C8	SNAP RING
52	111LR4014A	BOLT-PRESSURE
53	WPB06016A6	WASHER-PLAIN
54	138LR4008A	SPRING-PRESSURE
56	363LR4001D	BIMETAL-HEATER
58	141LR4012A	PLATE-BEARING
70	12200X022A	BEARING-RADIAL TRUST
71	12200X005A	BEARING-RADIAL TRUST
72	MBC04018D2	SCREW BH
79	MPC03006D2	SCREW PH
81	RC001000C8	SNAP RING
90	141LR4010A	BRACKET-HEATER
96	141LR4011A	BRACKET-HEATER,STOPPER
99	138LR4002A	SPRING-FILM,TENSION
100	125LR4001A	HANDLE-TENSION
102	142LR4001A	SPACER-HEATER,BKT
103	MBC04010D2	SCREW-BH
105	MBC05010D2	SCREW BH
106	MFC04018D2	SCREW FH
108	MBC05018D2	SCREW BH
111	130LR4005A	GEAR-TAKE UP
112	141LR4006A	PLATE-SLIP
113	138LR4006A	SPRING-SLIP
114	WPB08016A6	WASHER-PLAIN
115	141LR4003A	BRACKET-MOTOR
116	130LR4004A	GEAR-MOTOR
117	RE000600D2	E-RING
118	21000S027A	MOTOR-AC
120	021LR2004A	COVER-TAKE UP,R
121	36400X003A	SWITCH-POWER
122	NHB05038D2	NUT
123	112004001C	NUT
128	122LR4006A	BUSH-PULLEY
129	134LR4002A	PULLEY-CHAIN
130	BHE08045D2	BOLT
133	36400X001A	SWITCH-EMERGENCY
136	MBC04040D2	SCREW BH
137	SKE06010D2	SCREW-SET
138	SKE06015D2	SCREW-SET
139	SKE05010D2	SCREW-SET
143	131LR4004A	SPROCKET-MOTOR
144	131LR4005A	SPROCKET-ROLLER,LAMI
146	SKE04015D2	SCREW-SET
147	131LR4006A	SPROCKET-ROLLER,PULL
149	WPB13025A6	WASHER-PLAIN
150	112004001B	NUT
151	136LR4002B	CHAIN-ROLLER
152	136LR4002A	CHAIN-ROLLER
154	021LR2002A	COVER-R
155	032LR3004A	SHEET-FUNC
156	032LR4011A	SHEET-PRESSURE-CUL
157	023LR3006A	BUTTON-FUNC
158	350LR3007A	PCB-SUB ASS'Y
159	144LR4001A	CLAMPER-LEVER
160	125LR4003A	LEVER-PRESSURE
161	023LR4001A	KNOB-LEVER
167	147LR4001A	PAD-SLIP
185	WPB15020A6	WASHER-PLAIN
189	12200X025A	BEARING-SLIP
190	SKE04010D2	SCREW-SET
191	140LR4005A	HOLDER-SLIP
193	140LR4006A	HOLDER-SLIP(IN)
194	021LR1003A	COVER-TAKE UP,2
195	120LR4003A	SHAFT-SLIP
196	131LR4013A	SPROCKET-SLIP
197	147LR4007A	PAD-SLIP
198	131LR4014A	SPROCKET-SLIP(IN)
210	138LR4014A	SPRING-HEATER
213	021LR3006A	BRACKET-CLAMP LEVER

Stand Part and Frame - Base



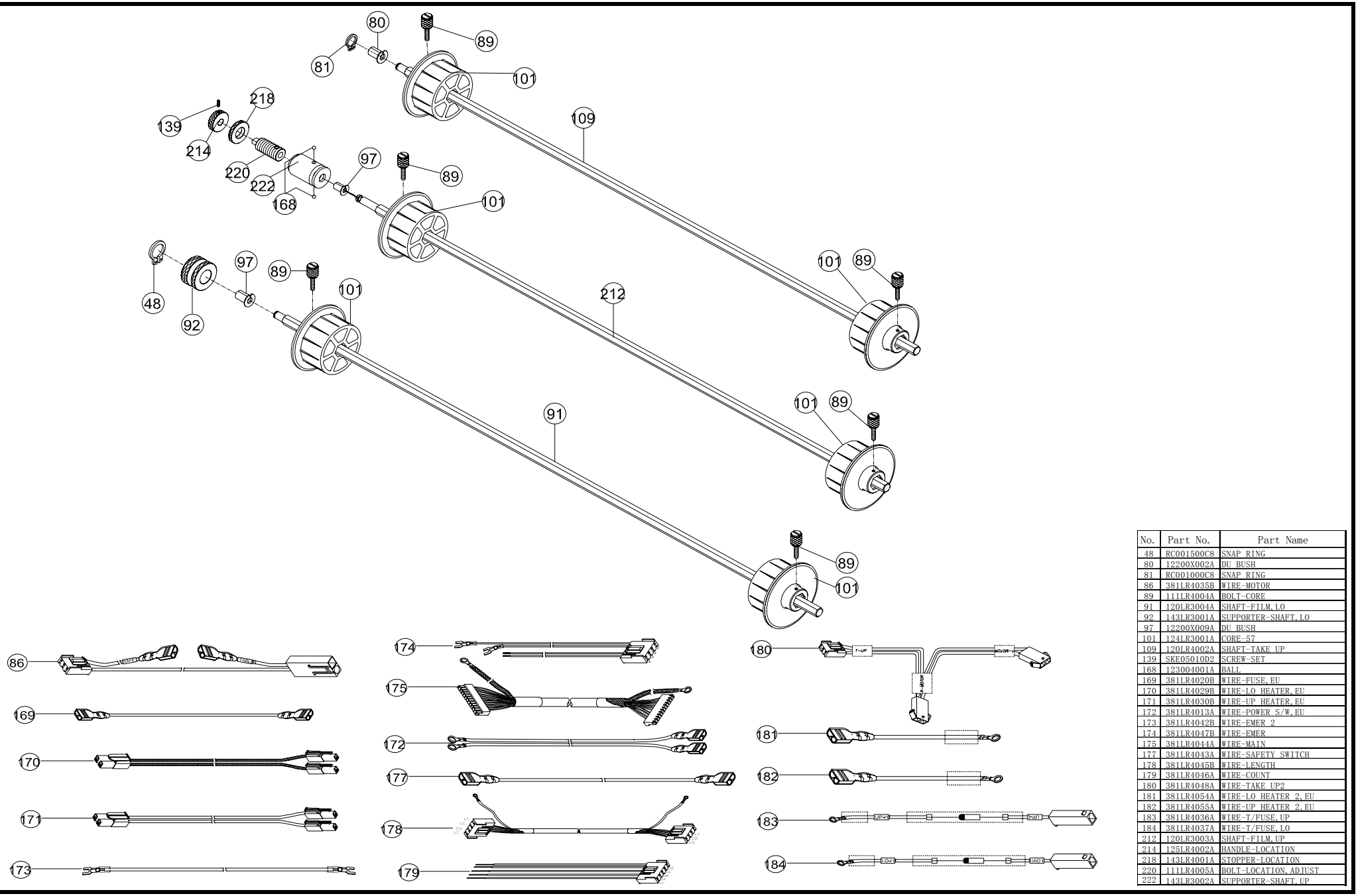
No.	Part No.	Part Name
1	13500X001A	CASTER-STAND1
2	13500X002A	CASTER-STAND2
3	WSB16038D0	WASHER-SPRING
4	212LR1003A	STAND-FRAME
5	212LR1005A	STAND-CENTER
6	BHE08015D2	BOLT
7	WSB08020D2	WASHER-SPRING
8	NHB08065D2	NUT
9	BHE08065D2	BOLT
10	212LR1004A	STAND-BASE
11	013LR2016A	FRAME-BASE
12	BHE06020D2	BOLT
13	WSB06015D2	WASHER-SPRING
14	MBC04008D2	SCREW BH
15	21100S002B	BLOWER-ASS'Y
16	WSB04010D2	WASHER-SPRING
18	141LR3001B	BRACKET-PCB
19	23200X001A	SUPPORT-B/K PCB
20	350LR3006D	PCB-MAIN ASS'Y
22	34000S008A	POWER TRANSFORMER
26	214LR3003A	MASH-FRAME,F
27	WSB03007D2	WASHER-SPRING
33	21000S019A	MOTOR-MAIN
69	381LR4032A	WIRE-REMOTE
162	1PC03006D2	SCREW TAP TATE PH
163	365LR4003A	SWITCH-FOOT ASS'Y
164	025LR4001A	CASE-REMOCON ASS'Y
165	350CR4001A	PCB-REMOCON ASS'Y
166	23300X008A	CABLE GRAND
176	141LR3004A	BRACKET-STAND
224	31300S002A	OPTICAL FIBER AMP

Frame, Roller and Other View



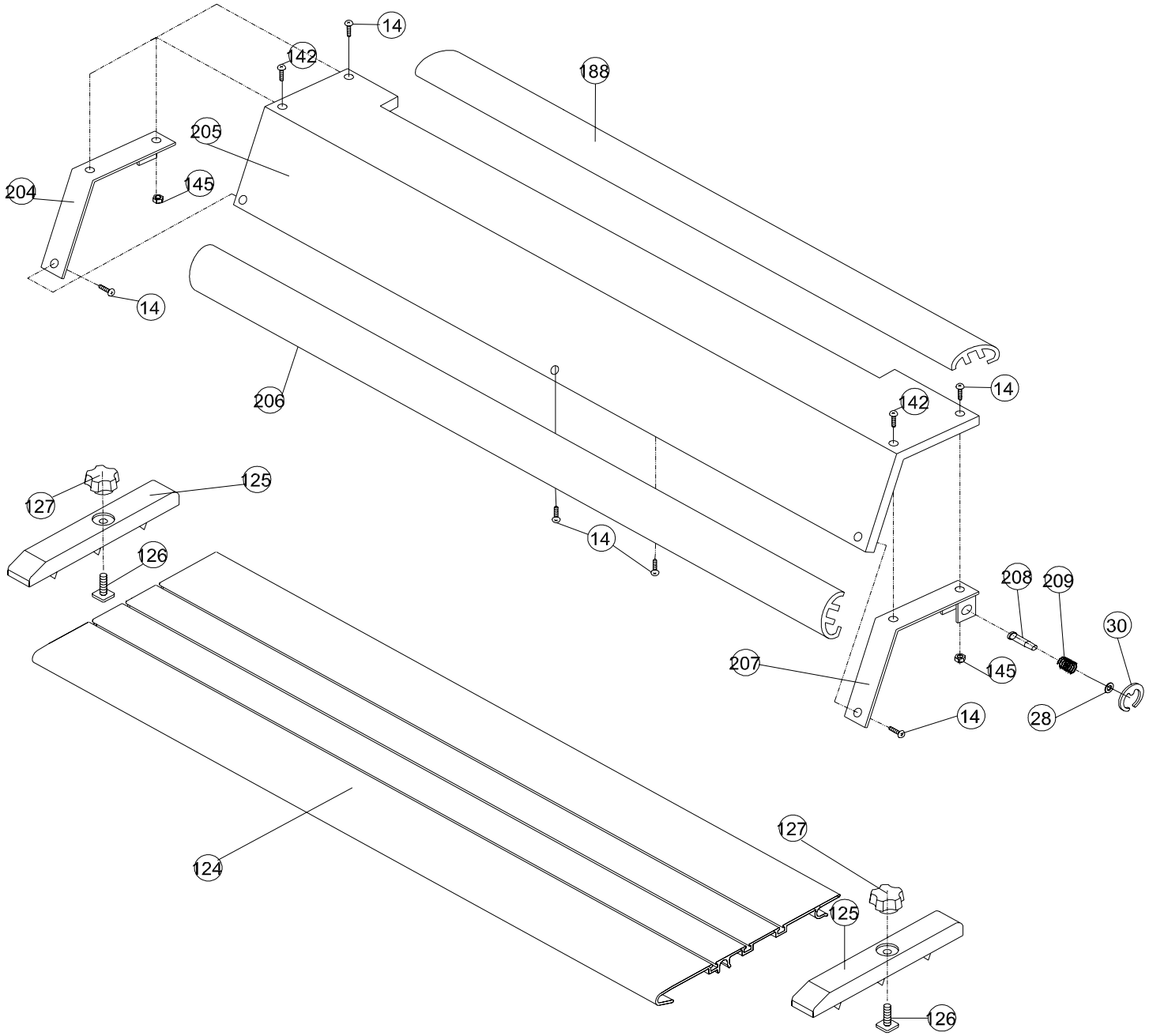
No.	Part No.	Part Name
14	MBC04008D2	SCREW BH
16	WSB04010D2	WASHER-SPRING
17	MFC04008D2	SCREW FH
21	MBC05030D2	SCREW BH
23	013LR2021A	FRAME-R
24	013LR2020A	FRAME-L
25	013LR2009A	FRAME-FRONT
29	WSB05013D2	WASHER-SPRING
31	013LR2017A	FRAME-CENTER
32	24000X003B	TAPE-TEFLON
34	013LR2013B	FRAME-GUIDE,PAPER
35	142LR4002A	SPACER-GUIDE
36	133LR2012A	ROLLER-LAMI
37	122LR4008A	BUSH-ROLLER,LAMI LO
38	12200X012A	DU-BUSH
39	133LR2014A	ROLLER-PULL,LO
42	120LR3001A	SHAFT-CAM
49	133LR2013A	ROLLER-PULL,UP
50	122LR4007A	BUSH-ROLLER,LAMI UP
51	122LR4009A	BUSH-ROLLER,PULL UP
55	120LR4001A	SHAFT-TABLE
57	12200X016A	BEARING-IDLE,UP
59	015LR3006A	BAR-IDLE
61	12200X014A	DU BUSH
62	013LR2012A	FRAME-SENSOR
63	223LR2005B	HEATER ASS'Y
64	122LR4010A	BUSH-ROLLER,PULL LO
65	12200X013A	DU BUSH
66	12200X015A	DU BUSH
67	313LR3001A	SENSOR-ASS'Y
68	140LR4002A	HOLDER-SHAFT,T
70	12200X022A	BEARING-RADIAL TRUST
72	MBC04018D2	SCREW BH
73	013LR3002A	FRAME-CUTTER
74	023LR3003A	KNOB-CUTTER,C
75	140LR3001A	HOLDER-CUTTER,C
76	213LR4001A	CUTTER-CROSS
77	138LR4001A	SPRING-CROSS,CUTTER
78	NHB03024D2	NUT
79	MPC03006D2	SCREW PH
84	021LR3003A	CASE-SENSOR,UP
85	021LR3004A	CASE-SENSOR,LO
87	381LR4027A	WIRE-SENSOR
88	TFH04035D2	SCREW FH
93	141LR4005A	PLATE-SHAFT,FILM
94	140LR4001A	HOLDER-SHAFT,FILM
95	147LR4002A	PAD-TENSION
104	141LR4009A	BRACKET-REAR COVER
105	MBC05010D2	SCREW BH
148	SKE04008D2	SCREW-SET
153	011LR2004A	COVER-REAR
199	140LR4003A	HOLDER-SAFETY COVER
200	140LR4004C	HOLDER ASS'Y SAFETY COVER
201	140LR4004B	HOLDER ASS'Y SAFETY COVER
202	140LR4004A	HOLDER ASS'Y SAFETY COVER
203	140LR4004D	HOLDER ASS'Y SAFETY COVER
211	141LR4036A	BRACKET-SENSOR
221	140LR4007A	HOLDER-SENSOR COUNT
223	31400S001A	OPTICAL FIBER CABLE

Wire and Film Shafts



No.	Part No.	Part Name
48	RC001500C8	SNAP RING
80	12200X002A	DU BUSH
81	RC001000C8	SNAP RING
86	381LR4035B	WIRE-MOTOR
89	111LR4004A	BOLT-CORE
91	120LR3004A	SHAFT-FILM,LO
92	143LR3001A	SUPPORTER-SHAFT,LO
97	12200X009A	DU BUSH
101	124LR3001A	CORE-57
109	120LR4002A	SHAFT-TAKE UP
139	SKE05010D2	SCREW-SET
168	123004001A	BALL
169	381LR4020B	WIRE-FUSE,EU
170	381LR4029B	WIRE-LO HEATER,EU
171	381LR4030B	WIRE-UP HEATER,EU
172	381LR4013A	WIRE-POWER S/W,EU
173	381LR4042B	WIRE-EMER 2
174	381LR4047B	WIRE-EMER
175	381LR4044A	WIRE-MAIN
177	381LR4043A	WIRE-SAFETY SWITCH
178	381LR4045B	WIRE-LENGTH
179	381LR4046A	WIRE-COUNT
180	381LR4048A	WIRE-TAKE UP2
181	381LR4054A	WIRE-LO HEATER 2,EU
182	381LR4055A	WIRE-UP HEATER 2,EU
183	381LR4036A	WIRE-T/FUSE,UP
184	381LR4037A	WIRE-T/FUSE,LO
212	120LR3003A	SHAFT-FILM,UP
214	125LR4002A	HANDLE-LOCATION
218	143LR4001A	STOPPER-LOCATION
220	111LR4005A	BOLT-LOCATION,ADJUST
222	143LR3002A	SUPPORTER-SHAFT,UP

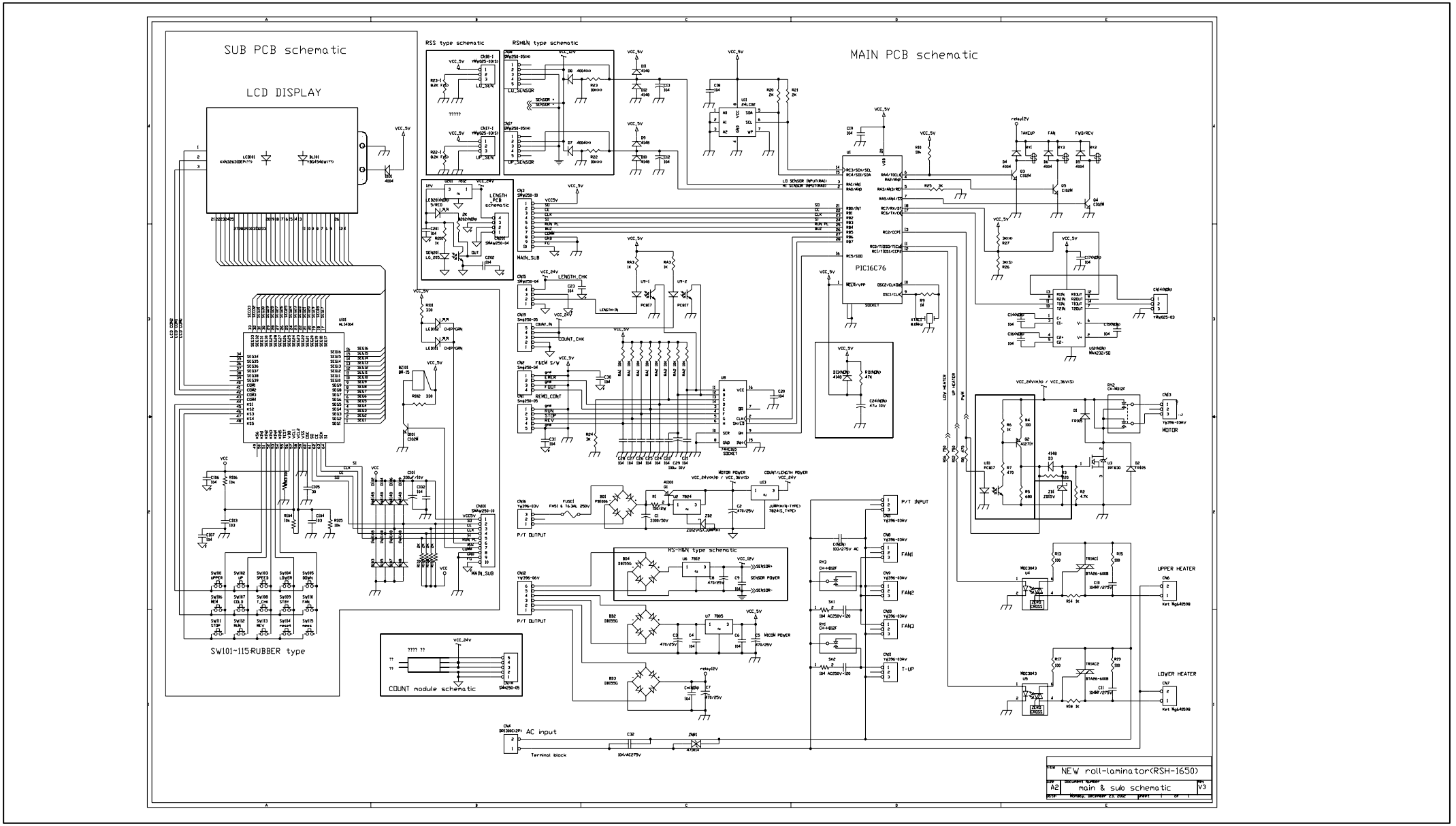
Front Table and Safety Cover



No.	Part No.	Part Name
14	MBC04008D2	SCREW BH
28	WPB04008D2	WASHER-PLAIN
30	RE000400D2	E-RING
124	014LR1003A	TABLE-FRONT
125	145LR3001A	GUIDE-DOCUMENT
126	111LR4006A	BOLT-GUIDE
127	023LR4002A	KNOB-BOLT,GUIDE
142	MBC04006D2	SCREW BH
145	NHB04032D2	NUT
188	141LR4022E	BRACKET-SAFETY COVER
204	013LR4002A	SAFETY COVER FRAME-L
205	021LR3005B	SAFETY COVER
206	141LR4022B	BRACKET-SAFETY COVER
207	013LR4001A	SAFETY COVER FRAME-R
208	111LR4009A	BOLT- SAFETY COVER
209	138LR4010A	SPRING-SAFETY COVER

8. RSH-1650/1050 Wiring Diagram

RSH-1650/1050 Wiring Diagram



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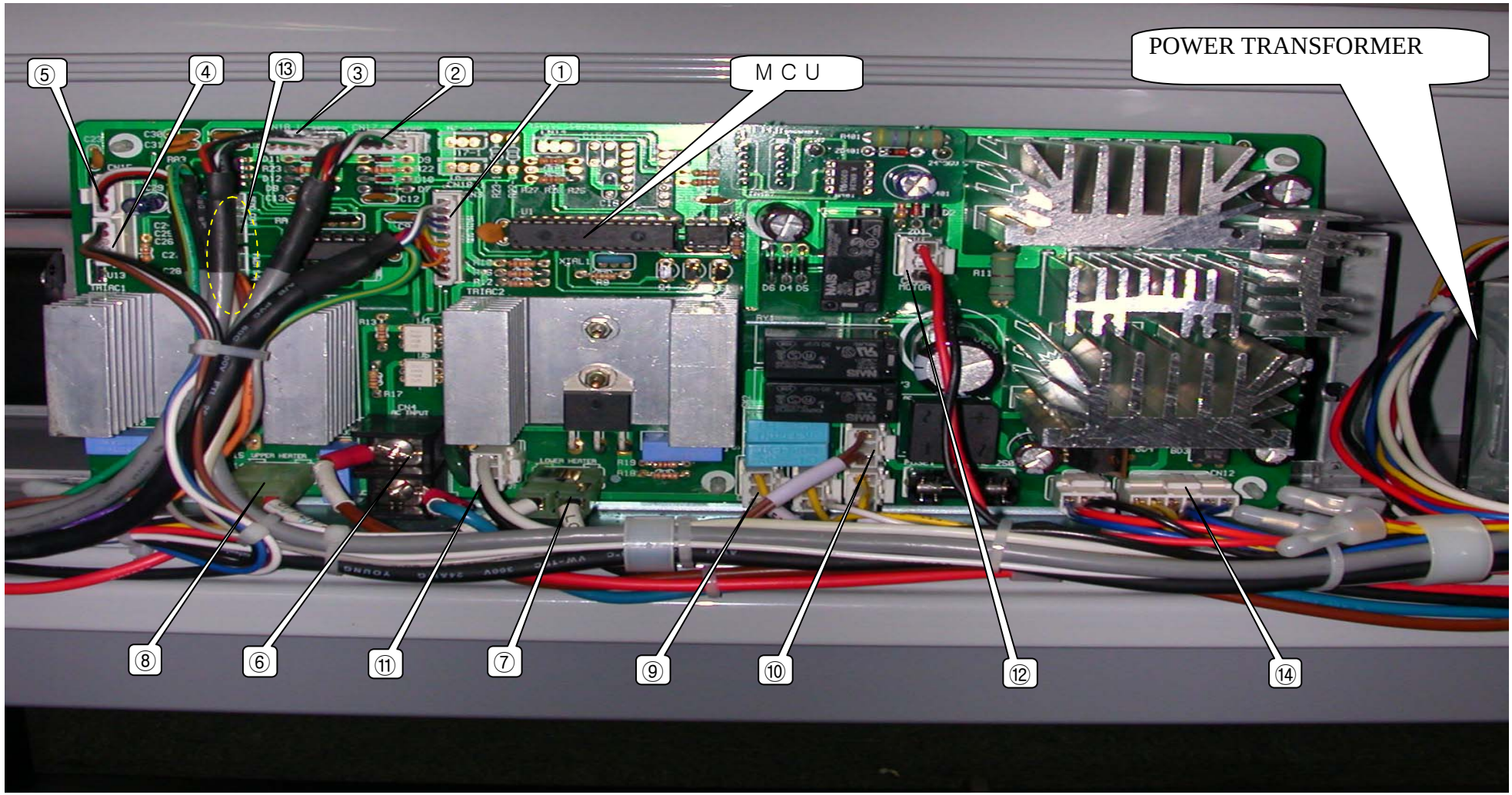
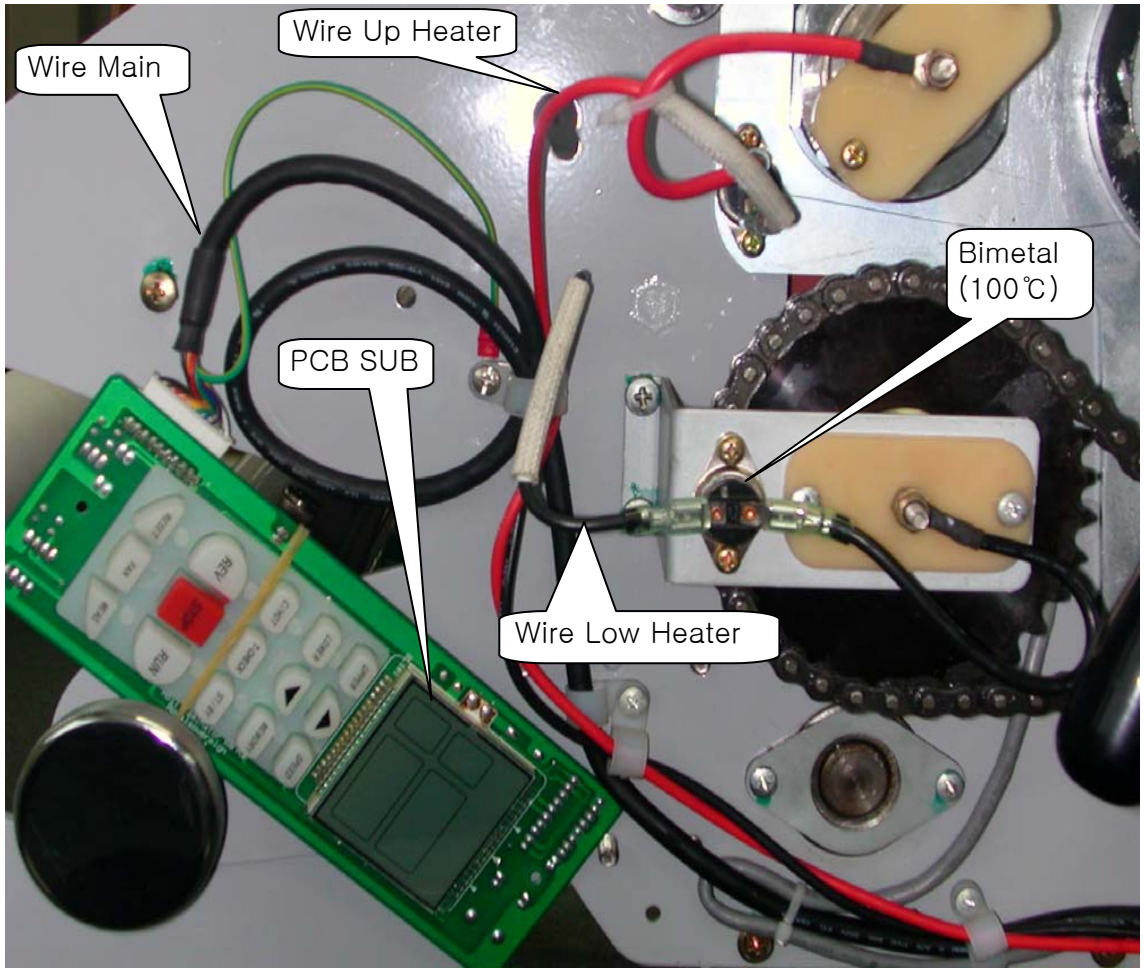


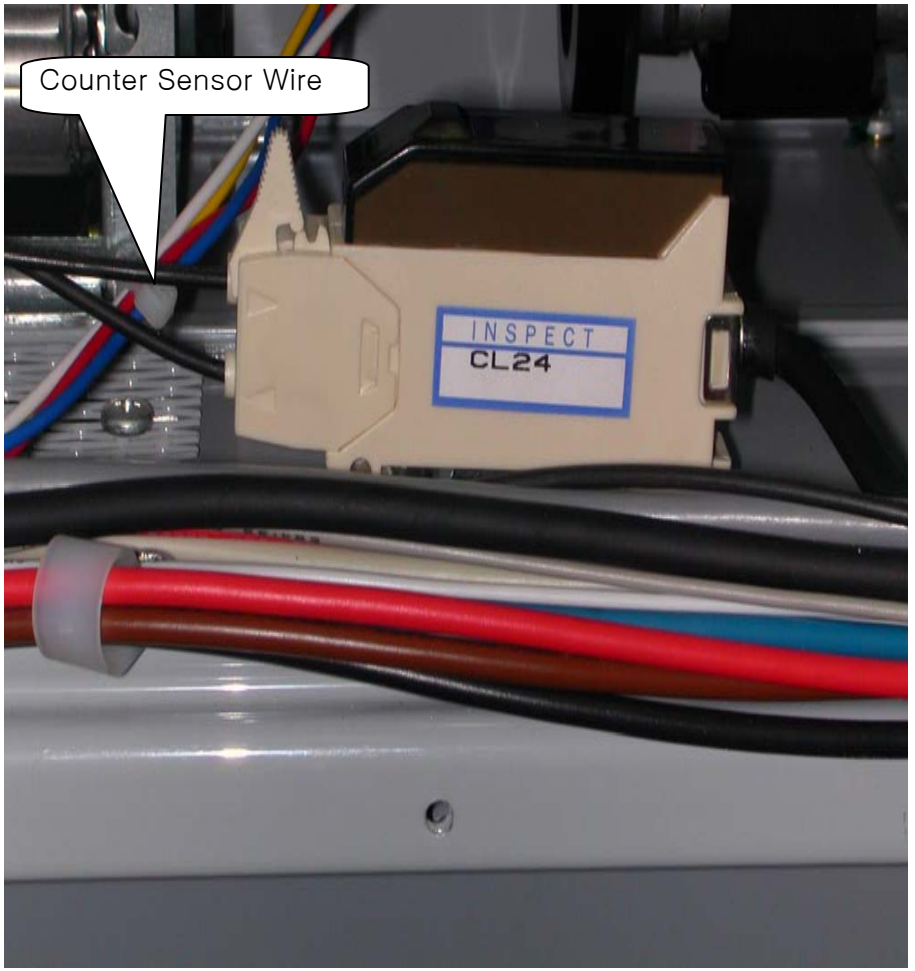
<Connect part>

1. Wire Main.
2. Wire Sensor Up
3. Wire Sensor Low
4. Wire Count
5. Wire Length
6. Wire Power
7. Wire Low Heater
8. Wire Up Heater.
9. Wire Blower(3EA)
10. Wire Take Up
11. Power Transformer wires
12. Motor wires
13. Remote Control and Foot Pedal wires.
14. Wires Output Transformer

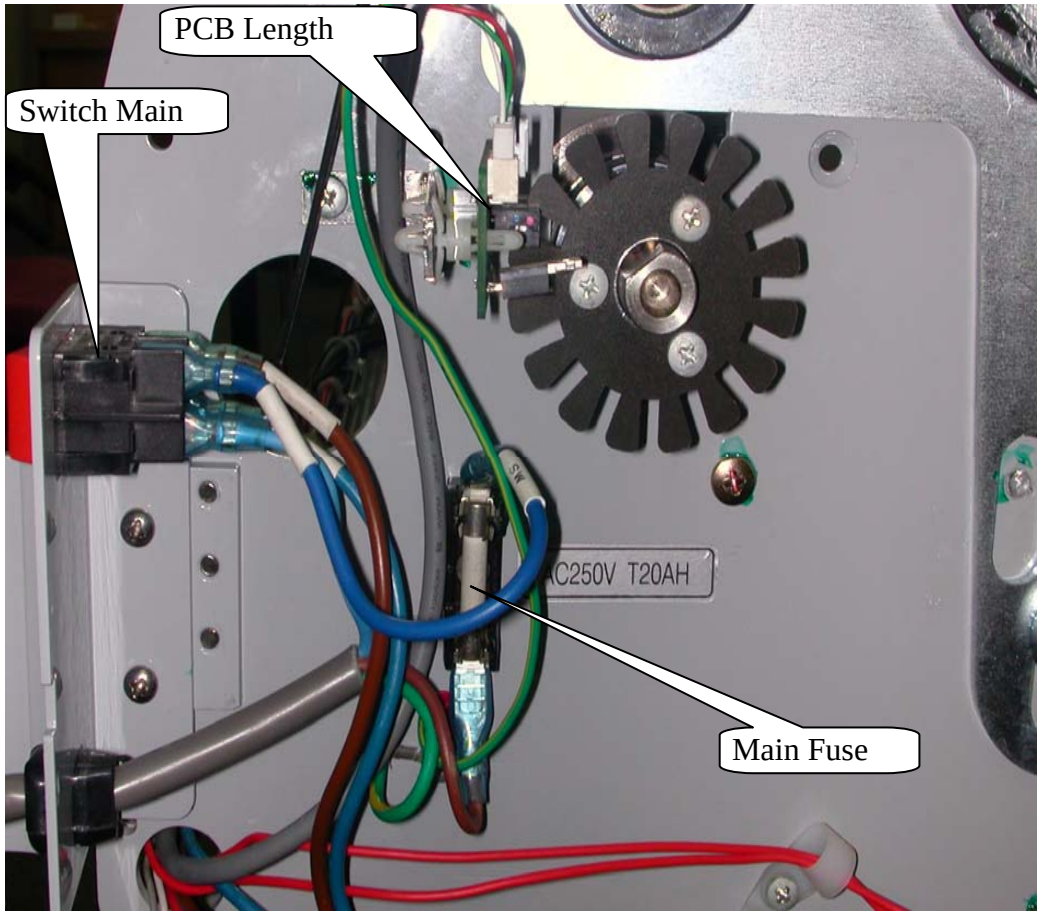
<SUB PCB and Frame-R Heater Layout>



<Length Layout>



<Main S/W and Count Layout>



<Micro S/W and Frame-L Heater Layout>